EOT
Massachusetts
Executive Office
of Transportation

CONCEPTUAL ENGINEERING & DRAFT ENVIRONMENTAL IMPACT REPORT

Red Line Blue Line CONNECTOR

THIRD WORKING GROUP PRESENTATION
INTRODUCTION OF PROJECT AND ALTERNATIVES
JULY 30, 2009

STV

Presentation Outline

- 1.0 Introduction and Guideline Review
- 2.0 EOT Update
- 3.0 Alternatives Presentation and Discussion of Construction Methodology
- 4.0 Presentation of Revised Evaluation Criteria
- 5.0 Presentation of Government Center Station Redesign
- 6.0 Public Comment
- 7.0 Next Meeting

1.0 Introduction and Guideline Review

- Goals

The primary role of the Working Group is to:

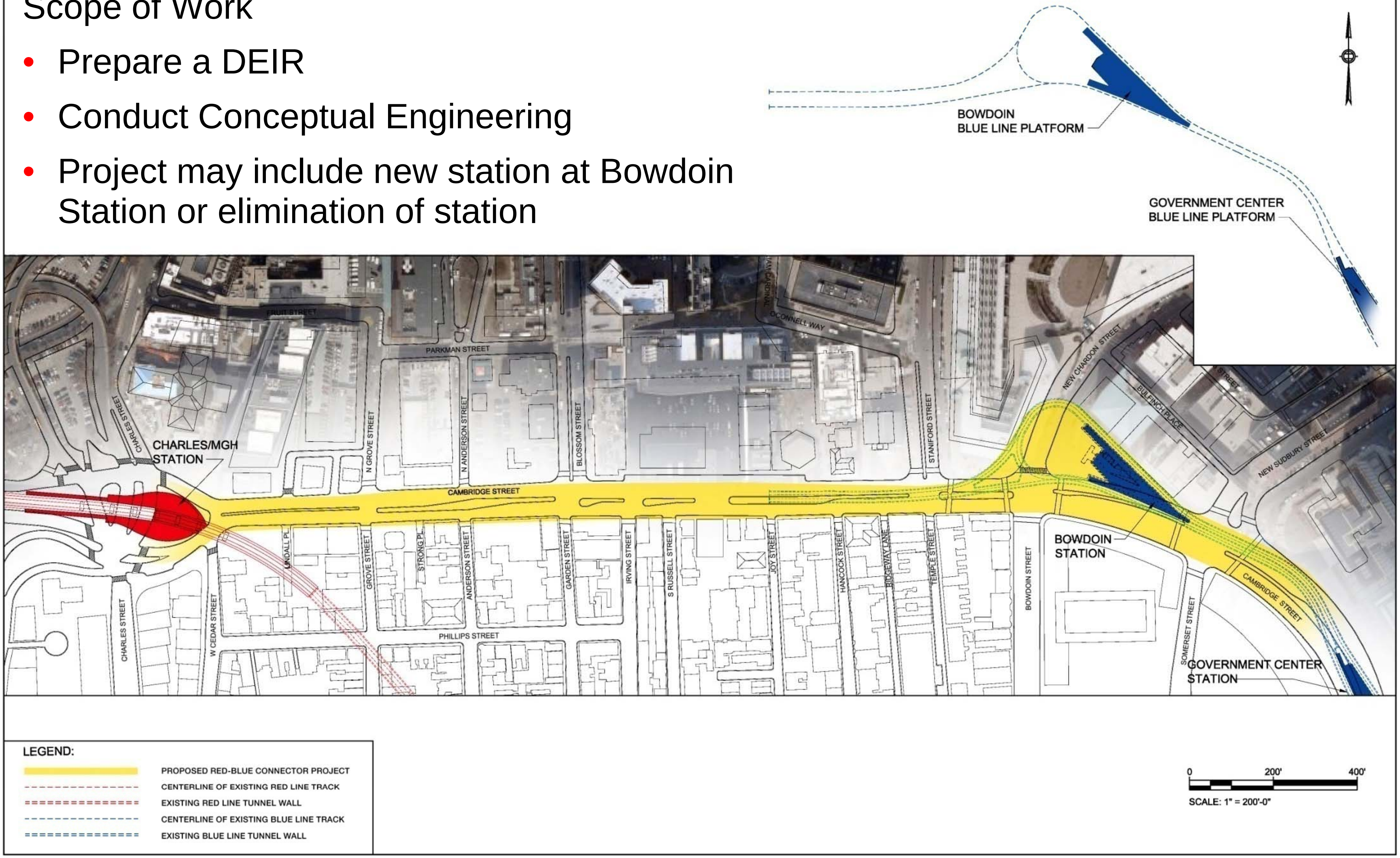
- *provide local input and perspective*
- *act as a sounding-board for major project decisions*
- *provide project-related information to the communities and constituencies represented by the Working Group members.*

EOT believes that community involvement and input will help to develop the best project for the region.

2.0 EOT Update

Scope of Work

- Prepare a DEIR
- Conduct Conceptual Engineering
- Project may include new station at Bowdoin Station or elimination of station



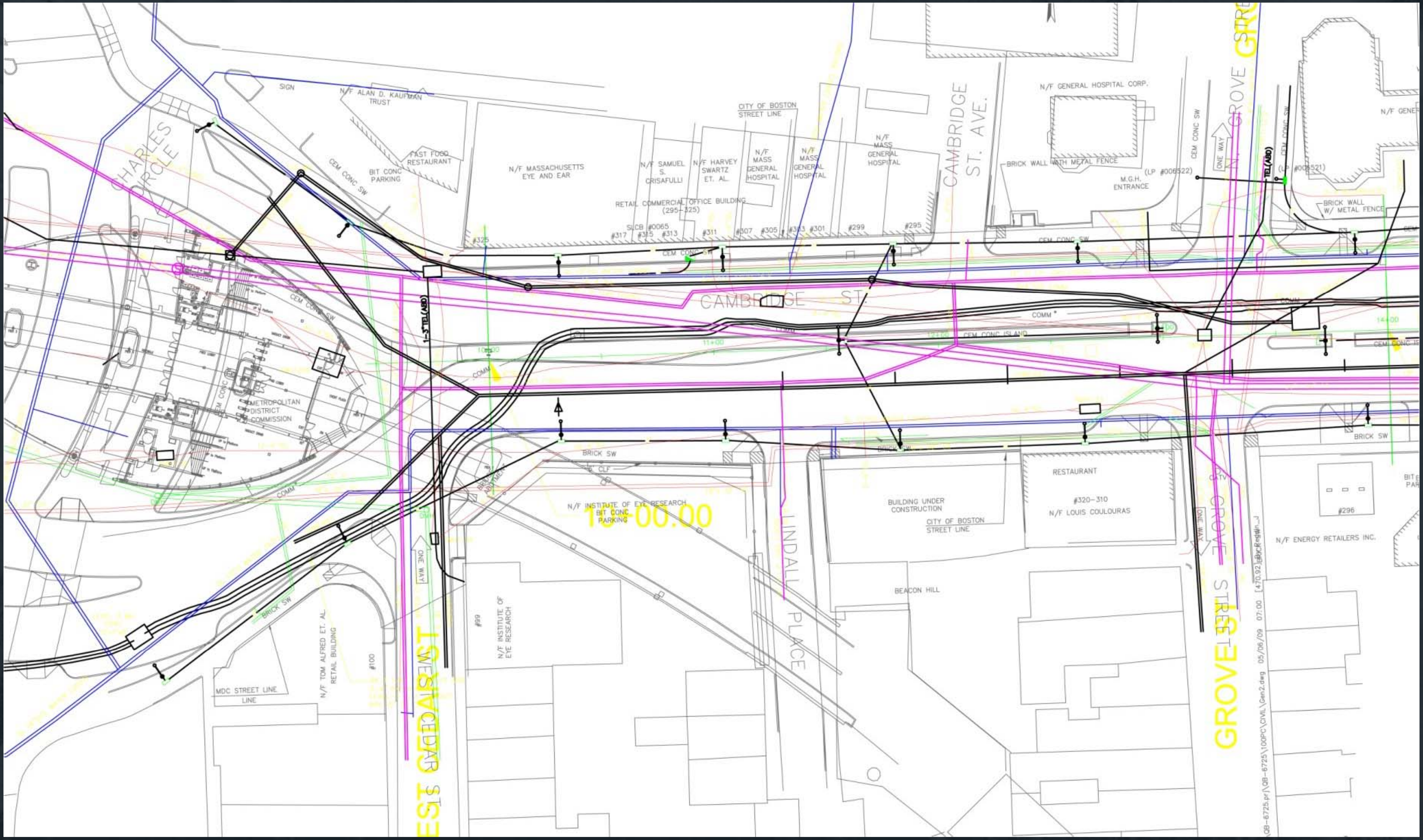
3.0 Alternatives Presentation and Discussion of Construction Methodology

- 2 – Bowdoin Eliminated Alternatives
  - *CC-1*
  - *MT-2C*

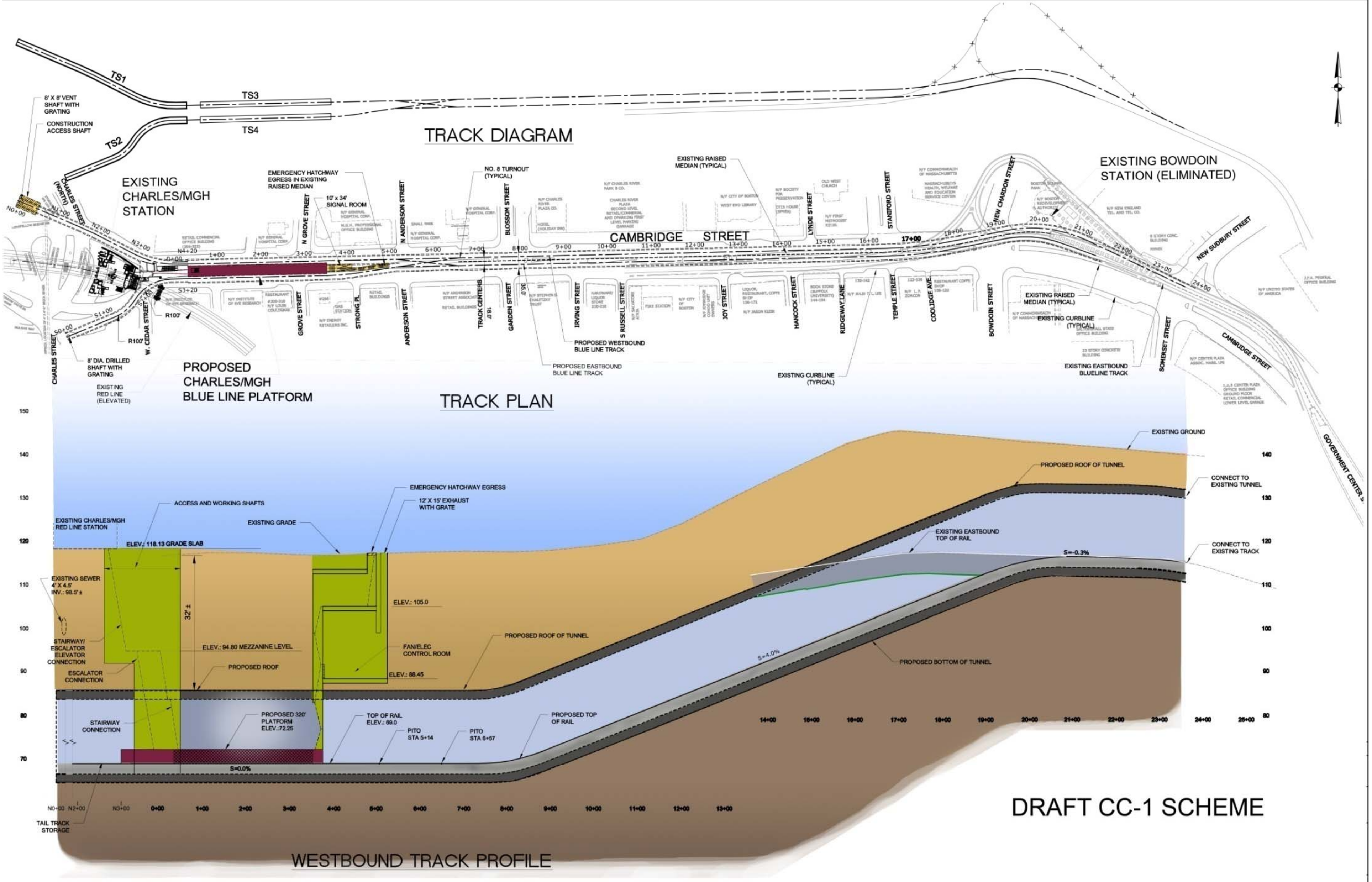
- 2 - Bowdoin Relocated Alternatives
  - *MT-3B*
  - *CC-2*

Existing Utilities

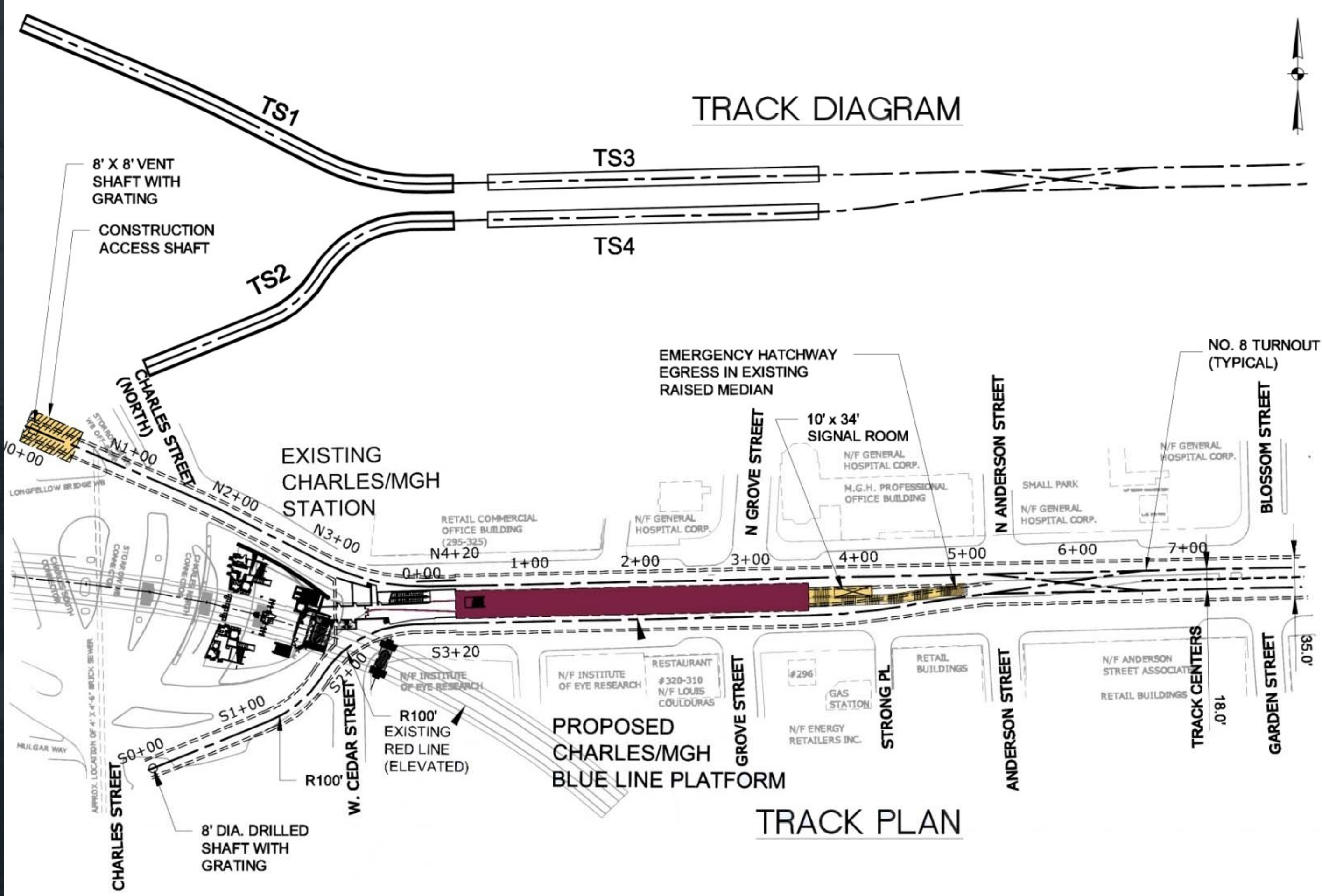
along and intersecting with Cambridge Street


CHARLES CIRCLE
SIGN
N/F ALAN D. KAUFMAN TRUST
FAST FOOD RESTAURANT
BIT CONC PARKING
CEM CONC SW
N/F MASSACHUSETTS EYE AND EAR
N/F SAMUEL S. CRISAFULLI
N/F HARVEY SWARTZ ET. AL.
N/F MASS GENERAL HOSPITAL
CITY OF BOSTON STREET LINE
RETAIL COMMERCIAL OFFICE BUILDING (295–325)
CAMBRIDGE ST. AVE.
N/F GENERAL HOSPITAL CORP.
BRICK WALL WITH METAL FENCE
M.G.H. ENTRANCE
BRICK WALL W/ METAL FENCE
N. GROVE STREET
ONE WAY
CAMBRIDGE ST.
COMM
CEM CONC ISLAND
METROPOLITAN DISTRICT COMMISSION
BRICK SW
N/F INSTITUTE OF EYE RESEARCH
BIT CONC PARKING
10+00.00
BUILDING UNDER CONSTRUCTION
RESTAURANT
#320–310
N/F LOUIS COULOURAS
N/F ENERGY RETAILERS INC.
#296
BEACON HILL
LINDALL PLACE
GROVE STREET
WEST CEDAR ST
MDC STREET LINE
N/F TOM ALFRED ET. AL. RETAIL BUILDING
#100
#99
N/T INSTITUTE OF EYE RESEARCH

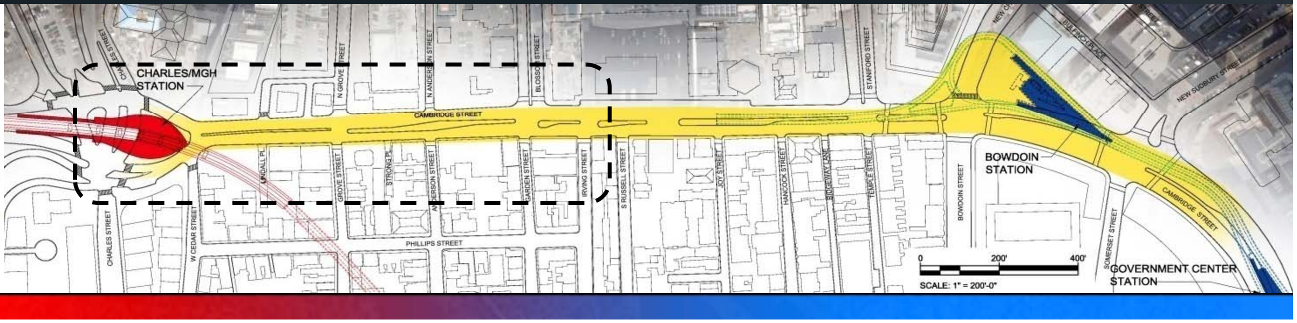
Alternative CC-1



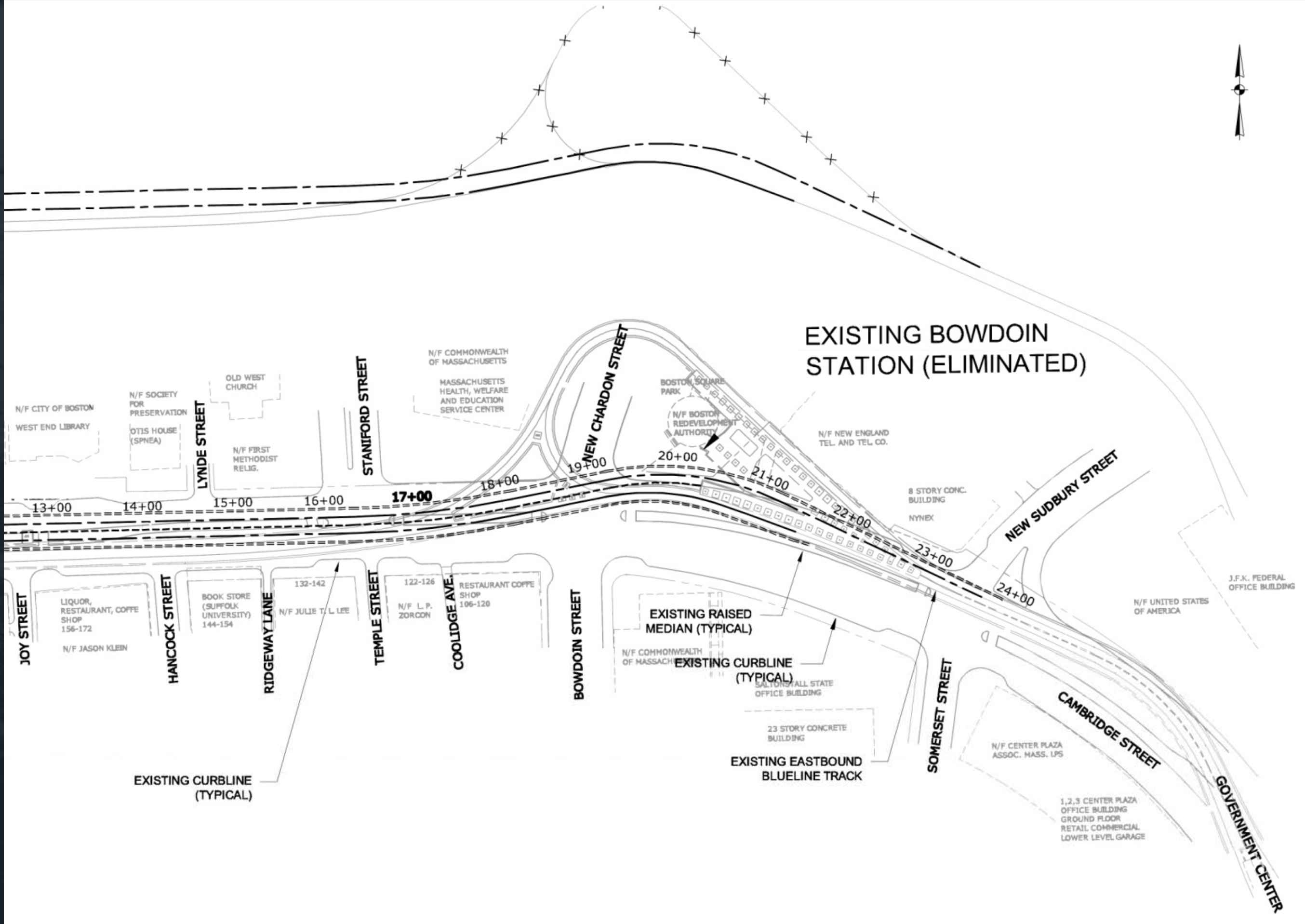
Alternative CC-1 at Charles MGH


TRACK DIAGRAM
TS1
TS2
TS3
TS4
8' X 8' VENT SHAFT WITH GRATING
CONSTRUCTION ACCESS SHAFT
CHARLES STREET (NORTH)
EMERGENCY HATCHWAY EGRESS IN EXISTING RAISED MEDIAN
NO. 8 TURNOUT (TYPICAL)
10' x 34' SIGNAL ROOM
N GROVE STREET
N ANDERSON STREET
BLOSSOM STREET
EXISTING CHARLES/MGH STATION
0+00
N1+00
N2+00
N3+00
N4+20
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
LONGFELLOW BRIDGE WB
RETAIL COMMERCIAL OFFICE BUILDING (295-325)
N/F GENERAL HOSPITAL CORP.
M.G.H. PROFESSIONAL OFFICE BUILDING
SMALL PARK
S3+20
S2+00
S1+00
S0+00
N/F INSTITUTE OF EYE RESEARCH
RESTAURANT #320-310 N/F LOUIS COULOURAS
#296
GAS STATION
RETAIL BUILDINGS
N/F ENERGY RETAILERS INC.
N/F ANDERSON STREET ASSOCIATES
RETAIL BUILDINGS
R100'
EXISTING RED LINE (ELEVATED)
R100'
PROPOSED CHARLES/MGH BLUE LINE PLATFORM
HULGAR WAY
APPROX. LOCATION OF 4' X 4'-6" BRICK SEWER
CHARLES STREET
W. CEDAR STREET
GROVE STREET
STRONG PL
ANDERSON STREET
TRACK CENTERS
18.0'
GARDEN STREET
35.0'
8' DIA. DRILLED SHAFT WITH GRATING
TRACK PLAN

Red Line
Blue Line
CONNECTOR

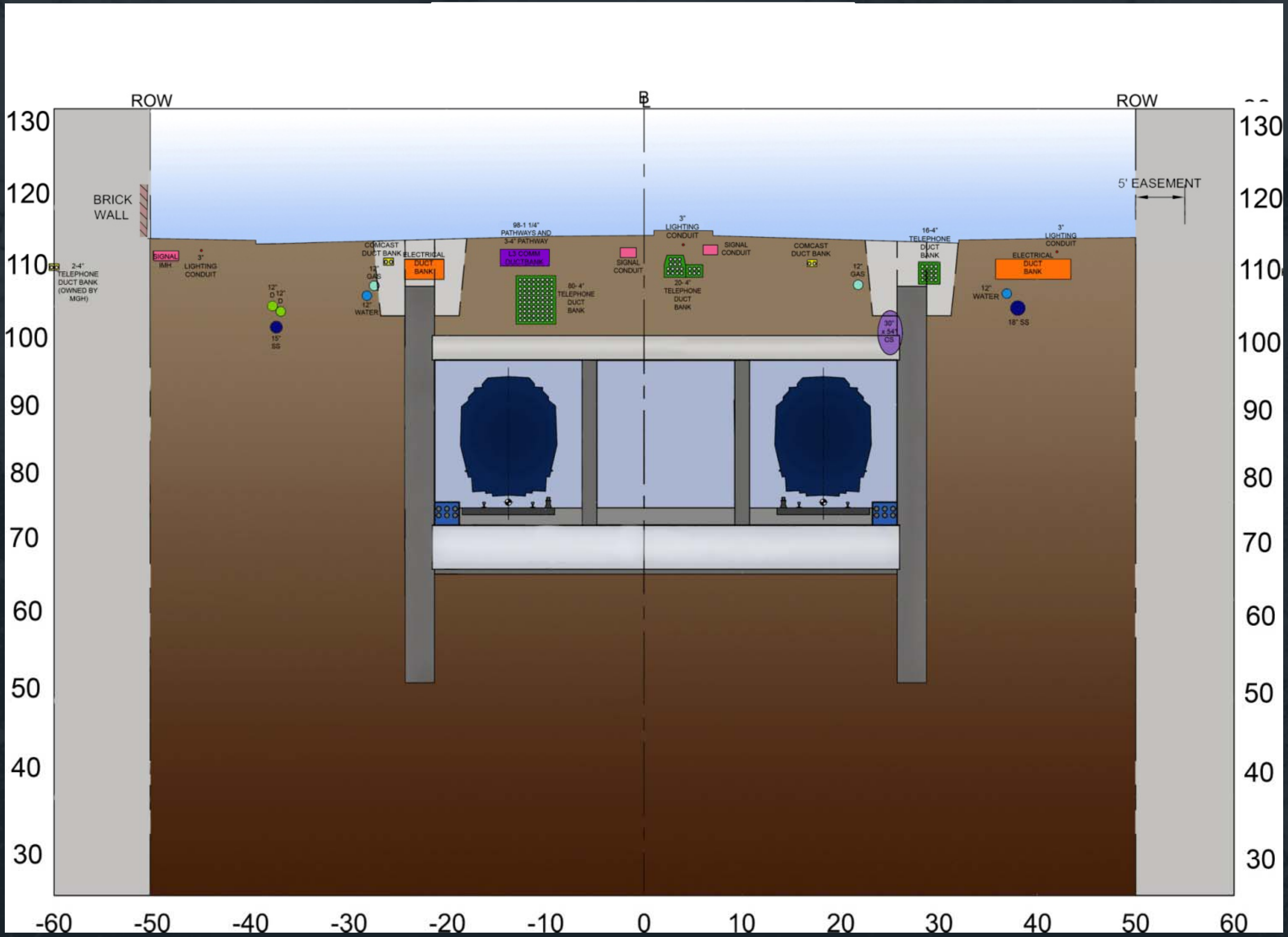


Alternative CC-1 at Eliminated Bowdoin

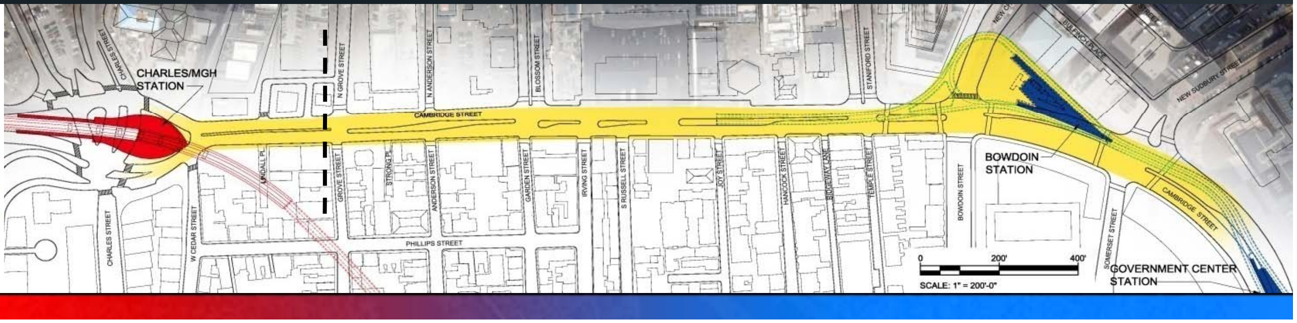

EXISTING BOWDOIN STATION (ELIMINATED)
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
N/F CITY OF BOSTON
WEST END LIBRARY
N/F SOCIETY FOR PRESERVATION
OTIS HOUSE (SPNEA)
LYNDE STREET
OLD WEST CHURCH
N/F FIRST METHODIST RELIG.
STANIFORD STREET
N/F COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HEALTH, WELFARE AND EDUCATION SERVICE CENTER
NEW CHARDON STREET
BOSTON SQUARE PARK
N/F BOSTON REDEVELOPMENT AUTHORITY
N/F NEW ENGLAND TEL. AND TEL. CO.
8 STORY CONC. BUILDING
NYNEX
NEW SUDBURY STREET
J.F.K. FEDERAL OFFICE BUILDING
N/F UNITED STATES OF AMERICA
JOY STREET
LIQUOR, RESTAURANT, COFFE SHOP 156-172
N/F JASON KLEIN
HANCOCK STREET
BOOK STORE (SUFFOLK UNIVERSITY) 144-154
RIDGEWAY LANE
132-142
N/F JULIE T. L. LEE
TEMPLE STREET
122-126
N/F L. P. ZORCON
COOLIDGE AVE.
RESTAURANT COFFE SHOP 106-120
BOWDOIN STREET
EXISTING RAISED MEDIAN (TYPICAL)
N/F COMMONWEALTH OF MASSACH
EXISTING CURBLINE (TYPICAL)
SALTONSTALL STATE OFFICE BUILDING
23 STORY CONCRETE BUILDING
EXISTING EASTBOUND BLUELINE TRACK
SOMERSET STREET
CAMBRIDGE STREET
N/F CENTER PLAZA ASSOC. MASS. LPS
1,2,3 CENTER PLAZA OFFICE BUILDING GROUND FLOOR RETAIL COMMERCIAL LOWER LEVEL GARAGE
GOVERNMENT CENTER
EXISTING CURBLINE (TYPICAL)

Red Line
Blue Line
CONNECTOR

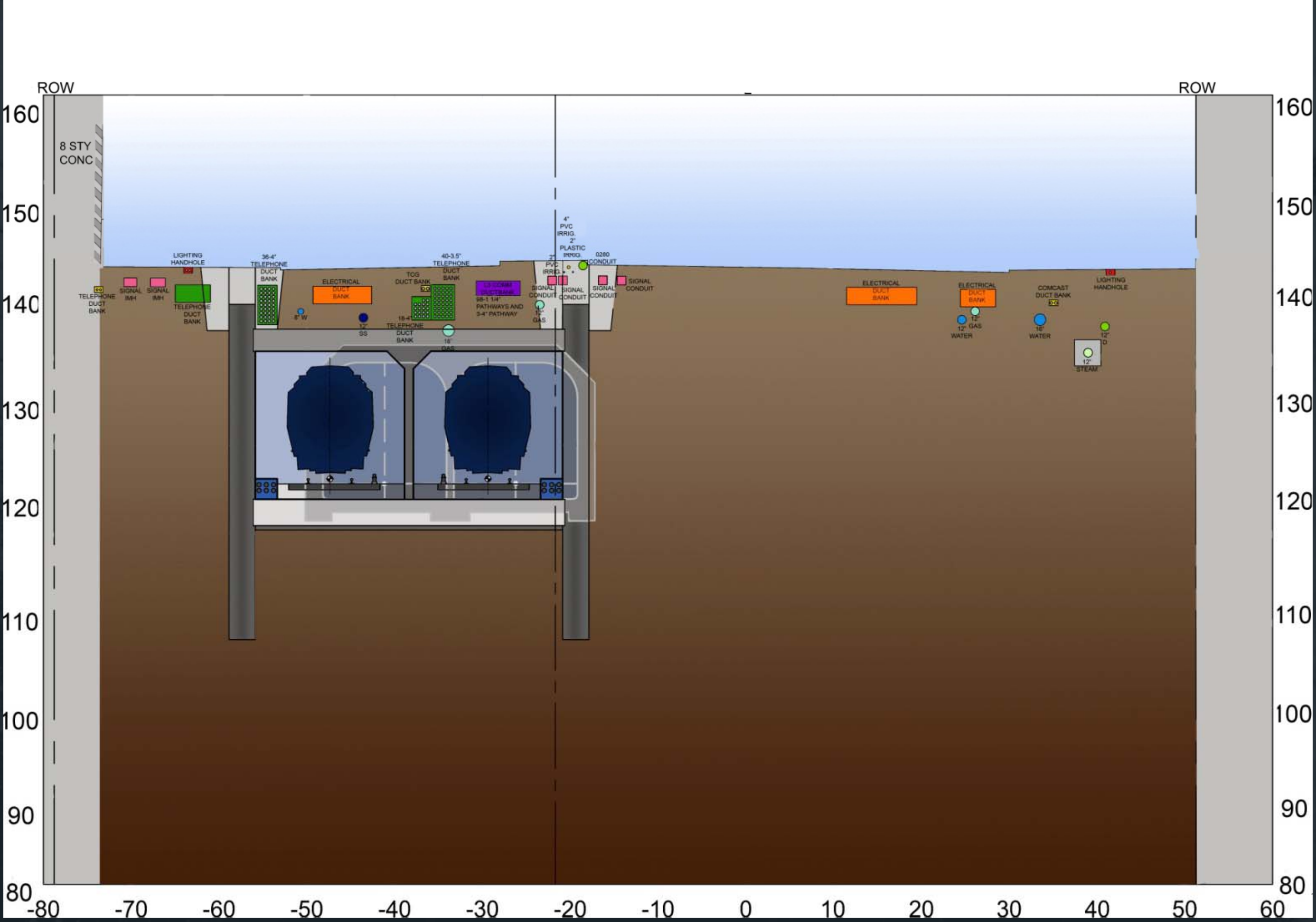
Alternative CC-1 Sections



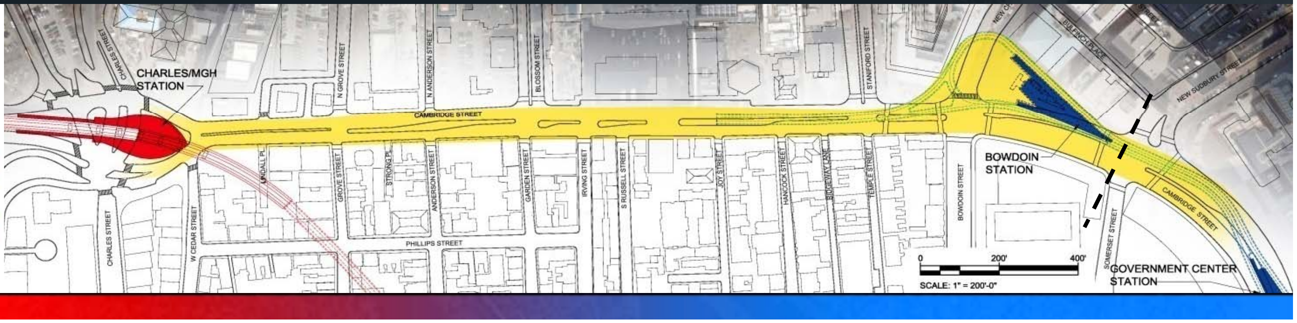
Red Line
Blue Line
CONNECTOR



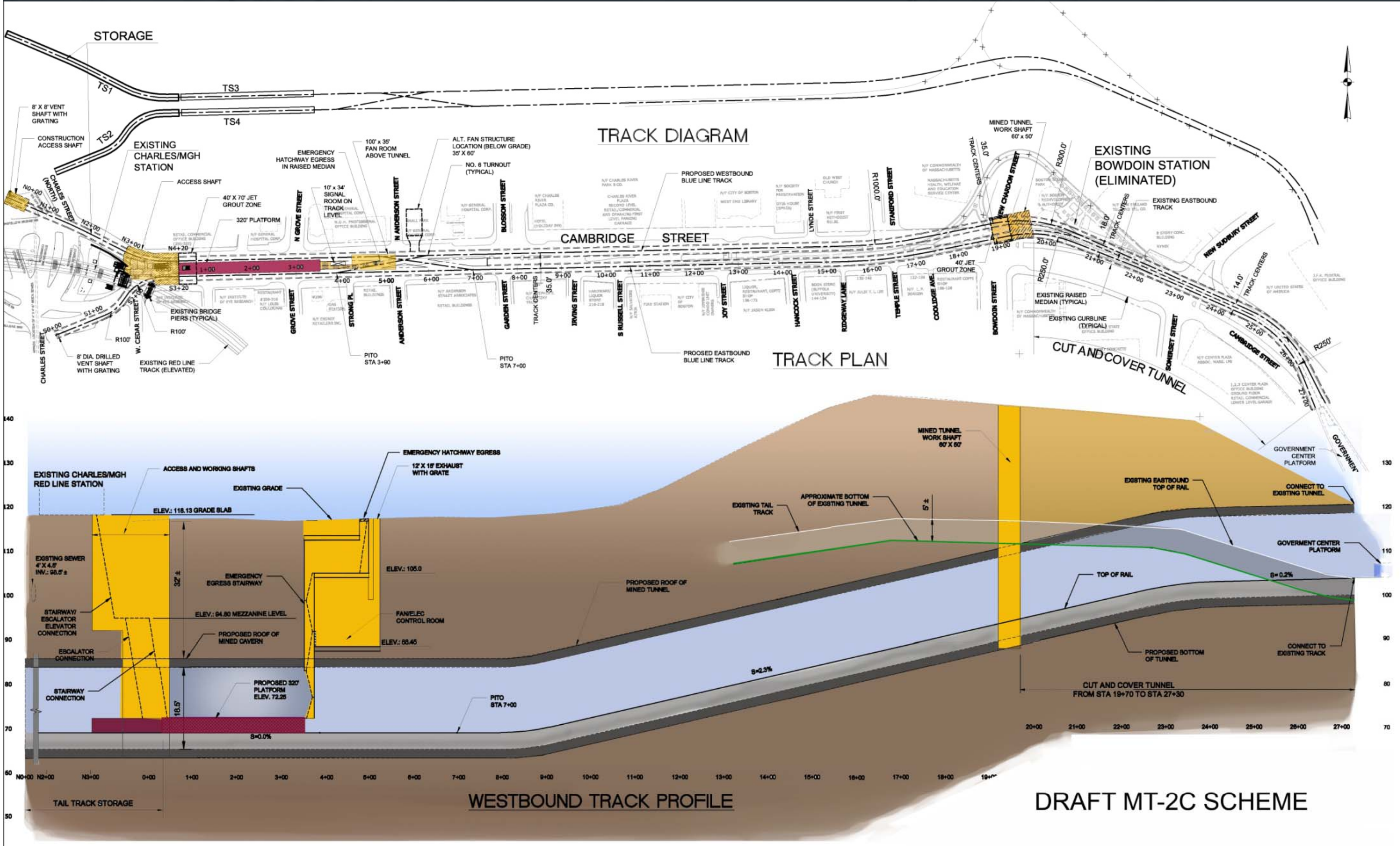
Alternative CC-1 Sections



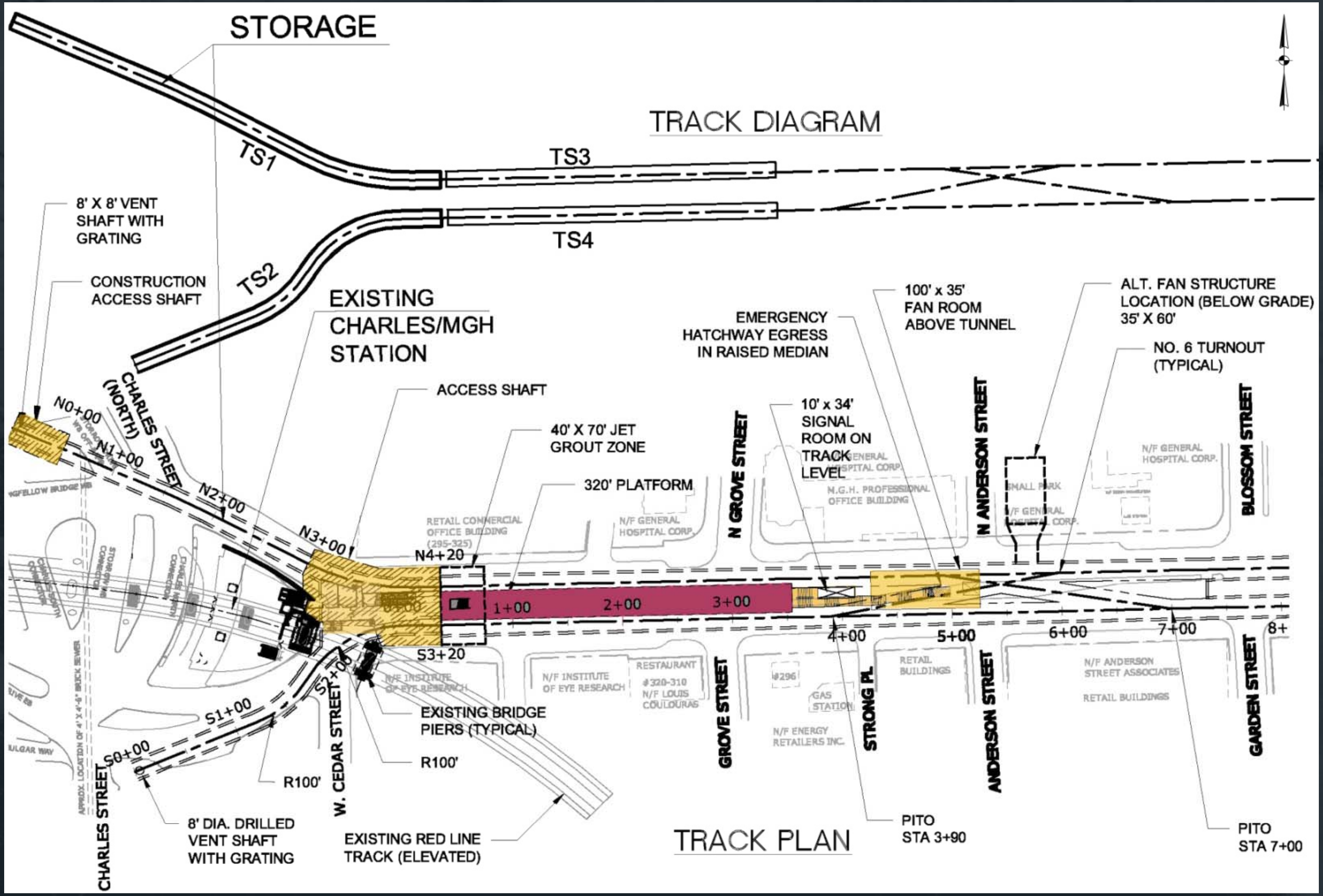
Red Line
Blue Line
CONNECTOR



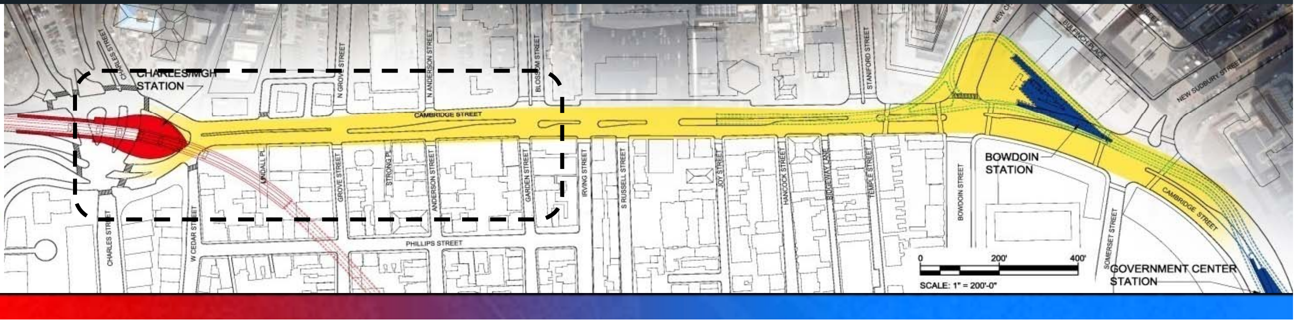
Alternative MT-2C


STORAGE
TS1
TS2
TS3
TS4
8' X 8' VENT SHAFT WITH GRATING
CONSTRUCTION ACCESS SHAFT
EXISTING CHARLES/MGH STATION
ACCESS SHAFT
40' X 70' JET GROUT ZONE
320' PLATFORM
EMERGENCY HATCHWAY EGRESS IN RAISED MEDIAN
100' x 35' FAN ROOM ABOVE TUNNEL
10' x 34' SIGNAL ROOM ON TRACK LEVEL
ALT. FAN STRUCTURE LOCATION (BELOW GRADE) 35' X 60'
NO. 6 TURNOUT (TYPICAL)
TRACK DIAGRAM
PROPOSED WESTBOUND BLUE LINE TRACK
PROOSED EASTBOUND BLUE LINE TRACK
CAMBRIDGE STREET
TRACK PLAN
CHARLES STREET (NORTH)
CHARLES STREET
W. CEDAR STREET
N GROVE STREET
GROVE STREET
STRONG PL
N ANDERSON STREET
ANDERSON STREET
BLOSSOM STREET
GARDEN STREET
IRVING STREET
S RUSSELL STREET
JOY STREET
LYNDE STREET
HANCOCK STREET
RIDGEWAY LANE
STANIFORD STREET
TEMPLE STREET
COOLIDGE AVE.
BOWDOIN STREET
NEW CHARDON STREET
NEW SUDBURY STREET
SOMERSET STREET
CAMBRIDGE STREET
GOVERNMENT
N0+00
N1+00
N2+00
N3+00
N4+20
S0+00
S1+00
S2+00
S3+20
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
R100'
R1000.0'
R300.0'
R250.0'
R250'
35.0' TRACK CENTERS
18.0' TRACK CENTERS
14.0' TRACK CENTERS
EXISTING BRIDGE PIERS (TYPICAL)
8' DIA. DRILLED VENT SHAFT WITH GRATING
EXISTING RED LINE TRACK (ELEVATED)
PITO STA 3+90
PITO STA 7+00
MINED TUNNEL WORK SHAFT 60' x 50'
40' JET GROUT ZONE
EXISTING BOWDOIN STATION (ELIMINATED)
EXISTING EASTBOUND TRACK
EXISTING RAISED MEDIAN (TYPICAL)
EXISTING CURBLINE (TYPICAL)
CUT AND COVER TUNNEL
GOVERNMENT CENTER PLATFORM
EXISTING CHARLES/MGH RED LINE STATION
ACCESS AND WORKING SHAFTS
EXISTING GRADE
EMERGENCY HATCHWAY EGRESS
12' X 18' EXHAUST WITH GRATE
ELEV.: 118.13 GRADE SLAB
EXISTING SEWER 4' X 4.5' INV.: 98.5' ±
32' ±
EMERGENCY EGRESS STAIRWAY
ELEV.: 105.0
STAIRWAY/ ESCALATOR ELEVATOR CONNECTION
ELEV.: 94.80 MEZZANINE LEVEL
FAN/ELEC CONTROL ROOM
PROPOSED ROOF OF MINED CAVERN
ELEV.: 88.45
ESCALATOR CONNECTION
STAIRWAY CONNECTION
PROPOSED 320' PLATFORM ELEV. 72.25
18.5'
S=0.0%
PITO STA 7+00
PROPOSED ROOF OF MINED TUNNEL
S=2.3%
EXISTING TAIL TRACK
APPROXIMATE BOTTOM OF EXISTING TUNNEL
5' ±
MINED TUNNEL WORK SHAFT 60' X 50'
EXISTING EASTBOUND TOP OF RAIL
CONNECT TO EXISTING TUNNEL
GOVERMENT CENTER PLATFORM
TOP OF RAIL
S= 0.2%
PROPOSED BOTTOM OF TUNNEL
CONNECT TO EXISTING TRACK
CUT AND COVER TUNNEL FROM STA 19+70 TO STA 27+30
TAIL TRACK STORAGE
N0+00
N2+00
N3+00
0+00
140
130
120
110
100
90
80
70
60
50
WESTBOUND TRACK PROFILE
DRAFT MT-2C SCHEME

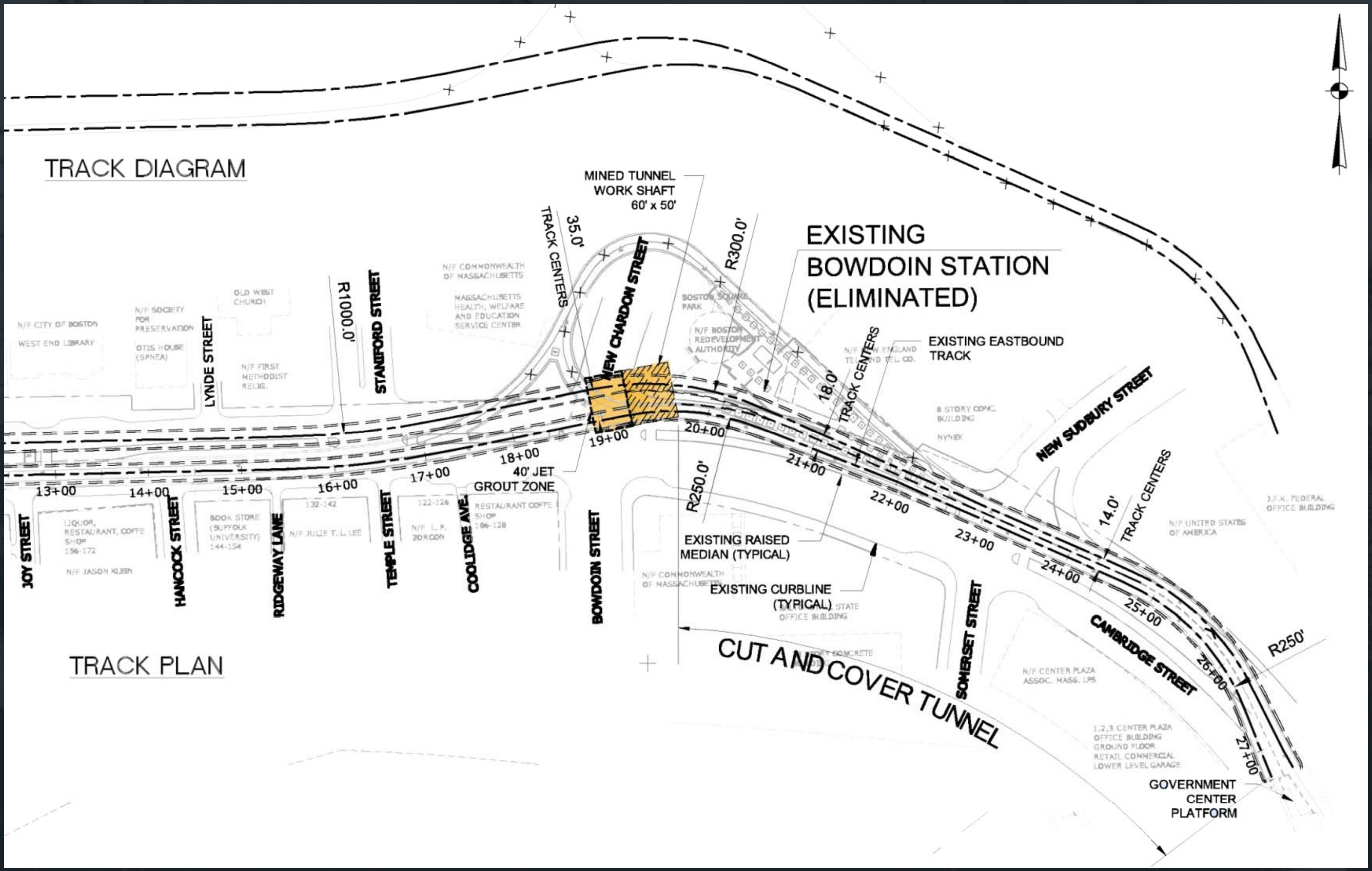
Alternative MT-2C at Charles MGH


STORAGE
TRACK DIAGRAM
TS1
TS2
TS3
TS4
8' X 8' VENT SHAFT WITH GRATING
CONSTRUCTION ACCESS SHAFT
EXISTING CHARLES/MGH STATION
CHARLES STREET (NORTH)
ACCESS SHAFT
40' X 70' JET GROUT ZONE
320' PLATFORM
EMERGENCY HATCHWAY EGRESS IN RAISED MEDIAN
100' x 35' FAN ROOM ABOVE TUNNEL
ALT. FAN STRUCTURE LOCATION (BELOW GRADE) 35' X 60'
NO. 6 TURNOUT (TYPICAL)
10' x 34' SIGNAL ROOM ON TRACK LEVEL
N GROVE STREET
N ANDERSON STREET
BLOSSOM STREET
N0+00
N1+00
N2+00
N3+00
N4+20
S3+20
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+
S0+00
S1+00
S2+00
R100'
R100'
EXISTING BRIDGE PIERS (TYPICAL)
W. CEDAR STREET
CHARLES STREET
8' DIA. DRILLED VENT SHAFT WITH GRATING
EXISTING RED LINE TRACK (ELEVATED)
TRACK PLAN
GROVE STREET
STRONG PL
ANDERSON STREET
GARDEN STREET
PITO STA 3+90
PITO STA 7+00
RETAIL COMMERCIAL OFFICE BUILDING (295-325)
N/F GENERAL HOSPITAL CORP.
M.G.H. PROFESSIONAL OFFICE BUILDING
SMALL PARK
N/F INSTITUTE OF EYE RESEARCH
RESTAURANT #320-310 N/F LOUIS COULDURAS
GAS STATION
N/F ENERGY RETAILERS INC.
RETAIL BUILDINGS
N/F ANDERSON STREET ASSOCIATES
RETAIL BUILDINGS
APPROX. LOCATION OF 4' X 4'-6" BUCK SEWER

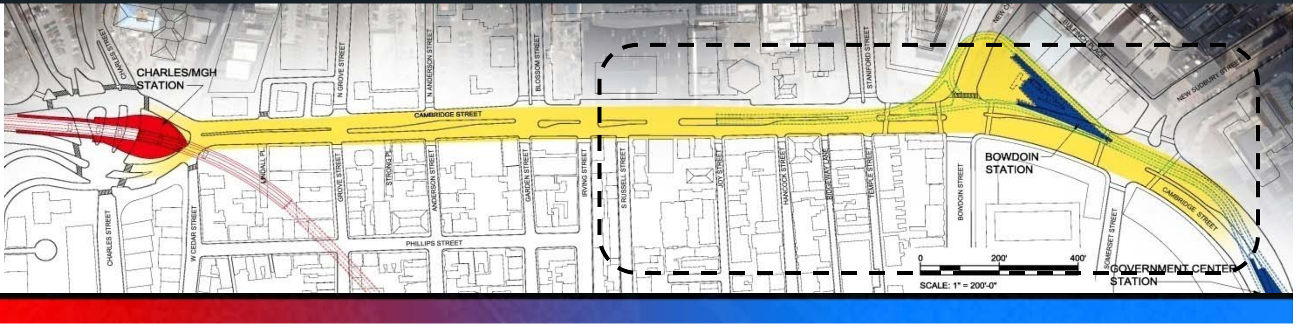
Red Line
Blue Line
CONNECTOR



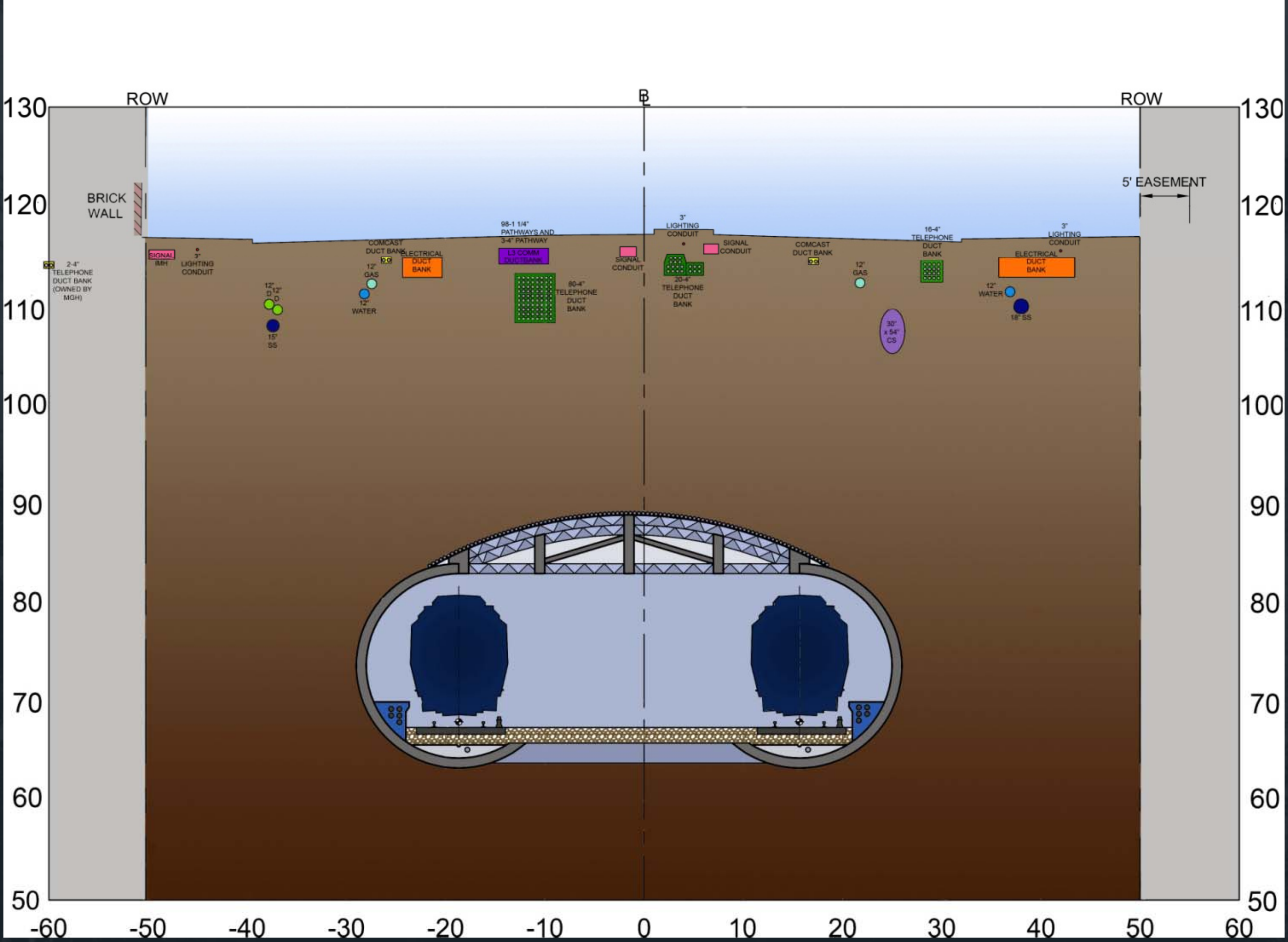
Alternative MT-2C at Eliminated Bowdoin



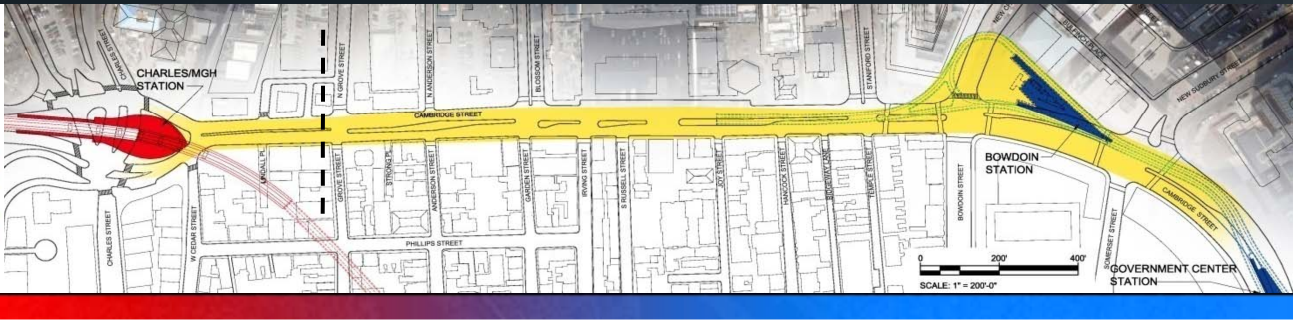
Red Line
Blue Line
CONNECTOR



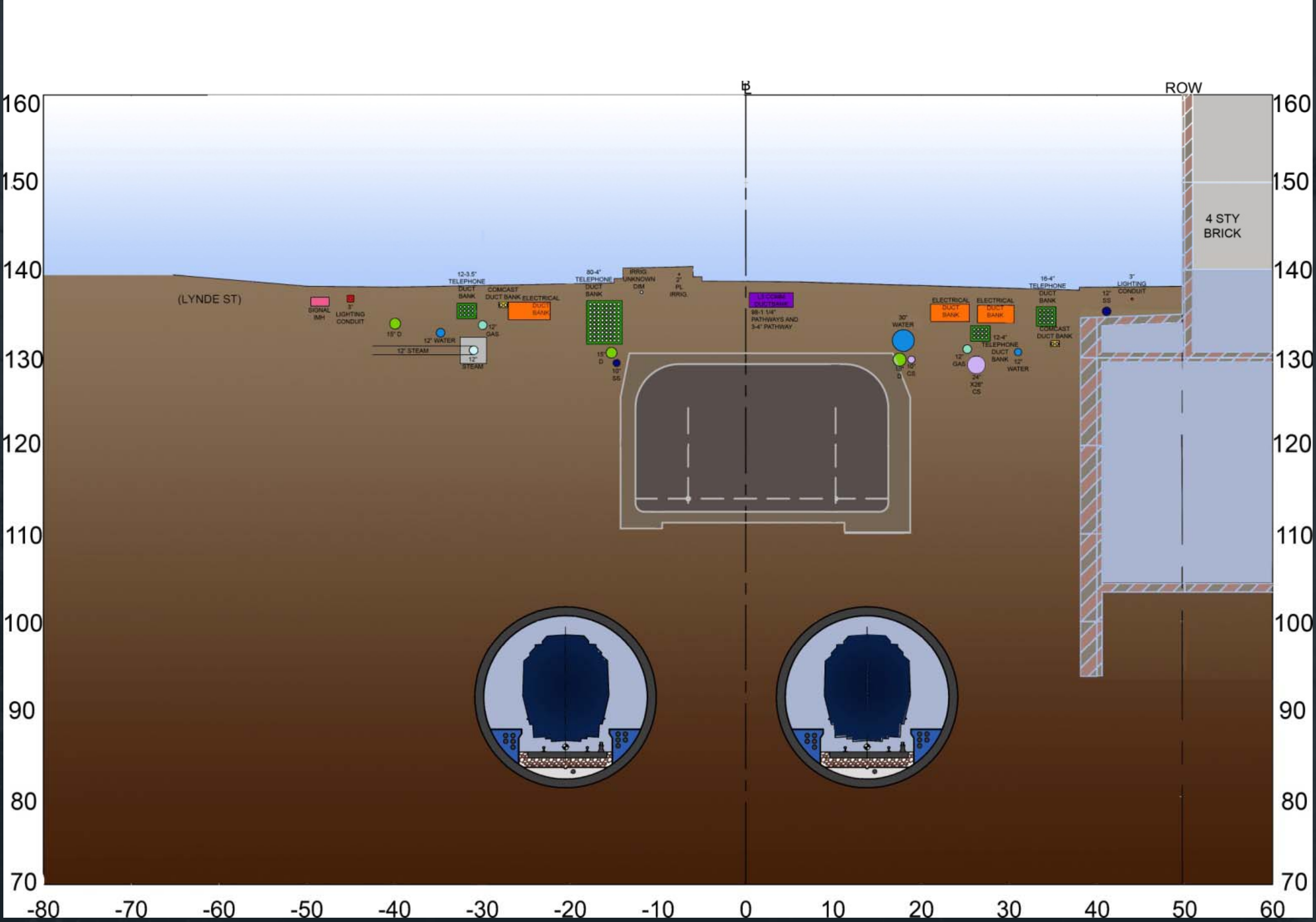
Alternative MT-2C Sections



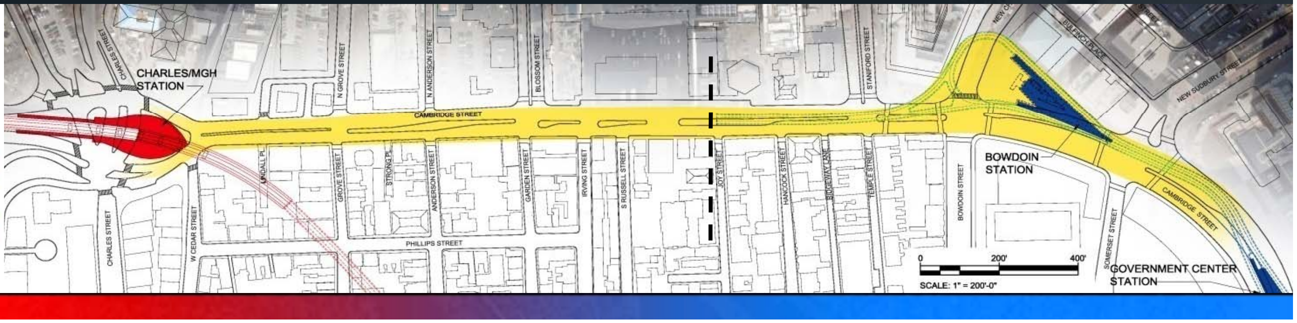
Red Line
Blue Line
CONNECTOR



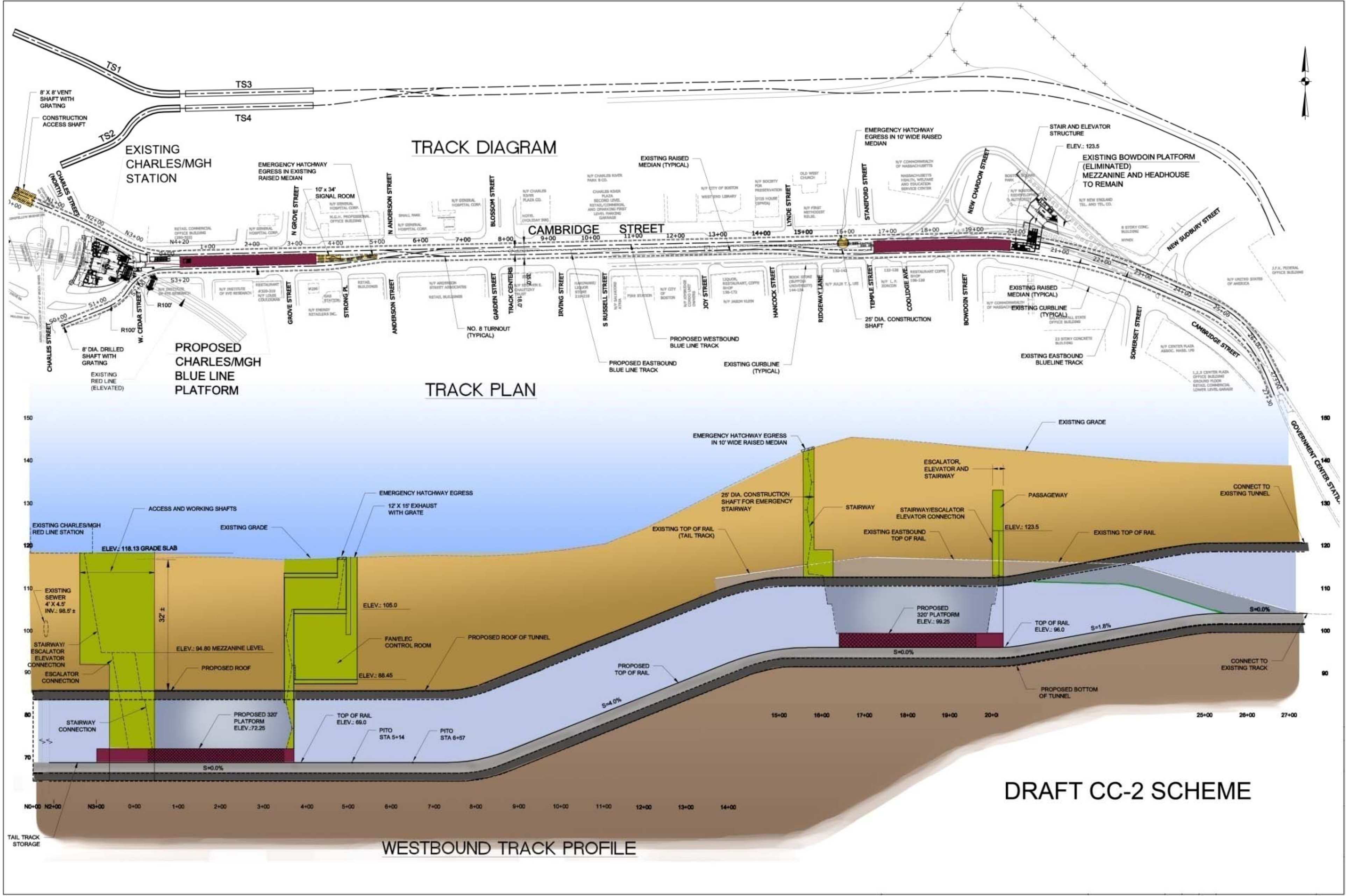
Alternative MT-2C Sections



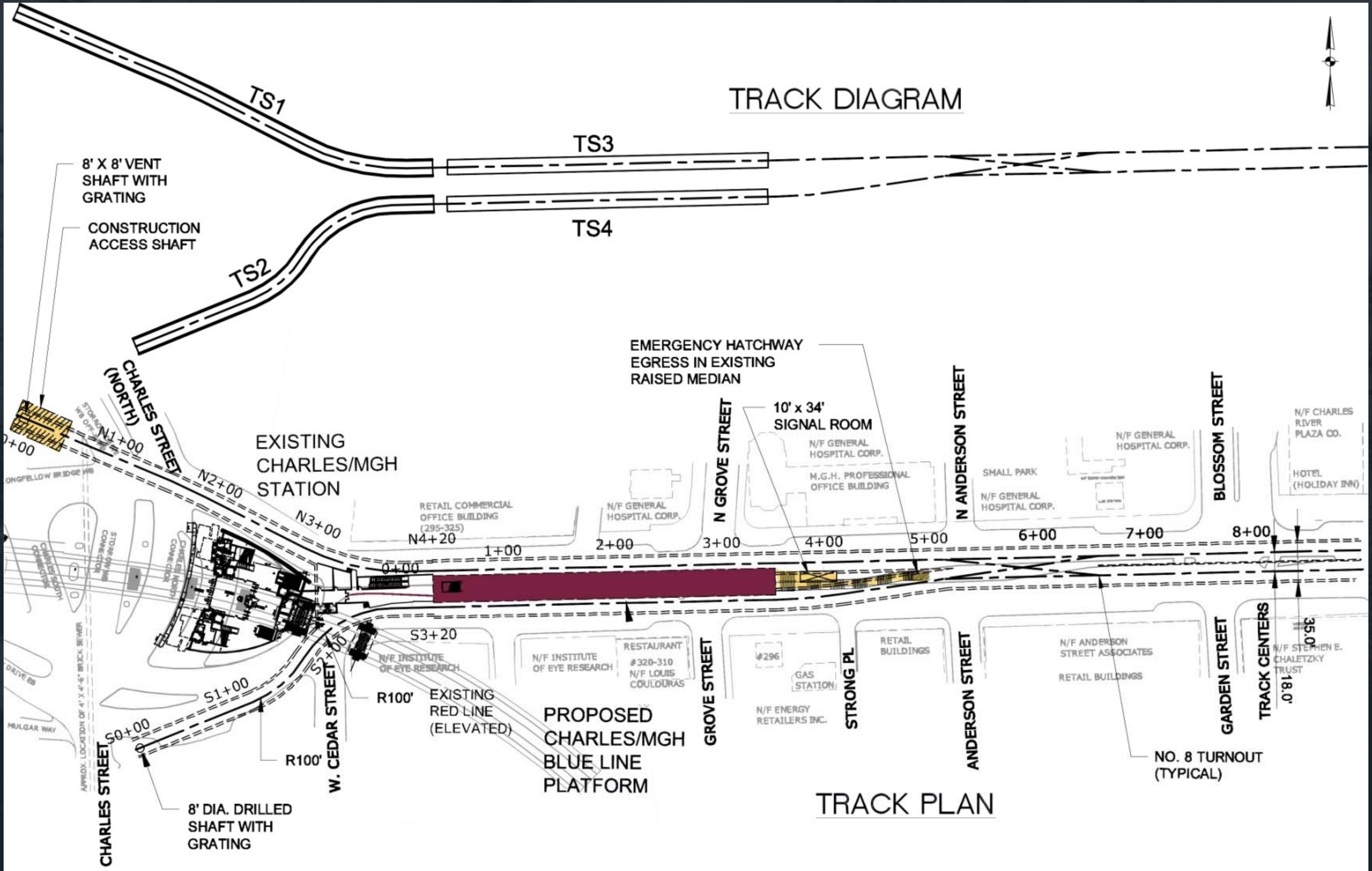
Red Line Blue Line CONNECTOR



Alternative CC-2

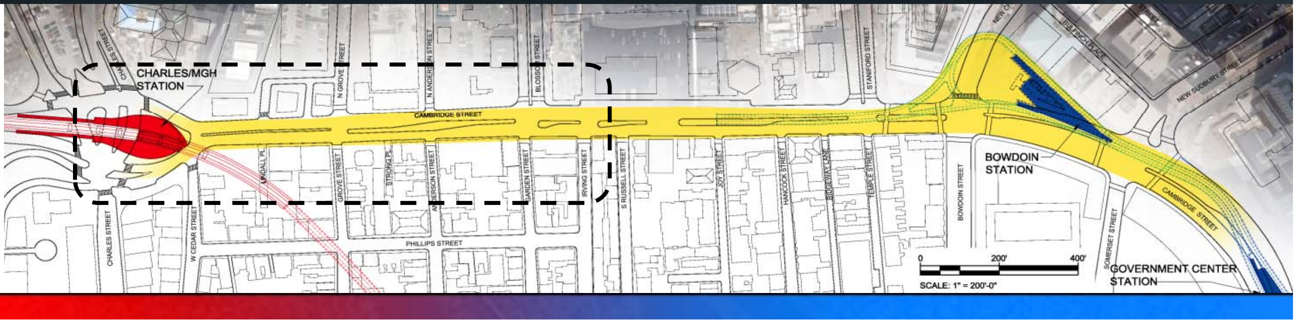

TS1
TS2
TS3
TS4
8' X 8' VENT SHAFT WITH GRATING
CONSTRUCTION ACCESS SHAFT
EXISTING CHARLES/MGH STATION
TRACK DIAGRAM
EMERGENCY HATCHWAY EGRESS IN EXISTING RAISED MEDIAN
10' x 34' SIGNAL ROOM
EXISTING RAISED MEDIAN (TYPICAL)
CHARLES STREET (NORTH)
N GROVE STREET
N ANDERSON STREET
BLOSSOM STREET
CAMBRIDGE STREET
LYNDE STREET
STANIFORD STREET
NEW CHARDON STREET
NEW SUDBURY STREET
N1+00
N2+00
N3+00
N4+20
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
27+30
S0+00
S1+00
S3+20
R100'
EMERGENCY HATCHWAY EGRESS IN 10' WIDE RAISED MEDIAN
STAIR AND ELEVATOR STRUCTURE
ELEV.: 123.5
EXISTING BOWDOIN PLATFORM (ELIMINATED) MEZZANINE AND HEADHOUSE TO REMAIN
CHARLES STREET
W. CEDAR STREET
GROVE STREET
STRONG PL
ANDERSON STREET
GARDEN STREET
TRACK CENTERS
18.0'
35.0'
IRVING STREET
S RUSSELL STREET
JOY STREET
HANCOCK STREET
RIDGEWAY LANE
TEMPLE STREET
COOLIDGE AVE.
BOWDOIN STREET
SOMERSET STREET
CAMBRIDGE STREET
GOVERNMENT CENTER STATION
8' DIA. DRILLED SHAFT WITH GRATING
EXISTING RED LINE (ELEVATED)
PROPOSED CHARLES/MGH BLUE LINE PLATFORM
NO. 8 TURNOUT (TYPICAL)
PROPOSED WESTBOUND BLUE LINE TRACK
PROPOSED EASTBOUND BLUE LINE TRACK
EXISTING CURBLINE (TYPICAL)
25' DIA. CONSTRUCTION SHAFT
EXISTING RAISED MEDIAN (TYPICAL)
EXISTING CURBLINE (TYPICAL)
EXISTING EASTBOUND BLUELINE TRACK
TRACK PLAN
150
140
130
120
110
100
90
80
70
EXISTING CHARLES/MGH RED LINE STATION
ACCESS AND WORKING SHAFTS
ELEV.: 118.13 GRADE SLAB
EXISTING GRADE
EMERGENCY HATCHWAY EGRESS
12' X 15' EXHAUST WITH GRATE
EXISTING SEWER 4' X 4.5' INV.: 98.5' ±
32' ±
ELEV.: 105.0
STAIRWAY/ ESCALATOR ELEVATOR CONNECTION
ELEV.: 94.80 MEZZANINE LEVEL
FAN/ELEC CONTROL ROOM
PROPOSED ROOF OF TUNNEL
ESCALATOR CONNECTION
PROPOSED ROOF
ELEV.: 88.45
STAIRWAY CONNECTION
PROPOSED 320' PLATFORM ELEV.:72.25
TOP OF RAIL ELEV.: 69.0
PITO STA 5+14
PITO STA 6+57
S=0.0%
S=4.0%
PROPOSED TOP OF RAIL
EXISTING TOP OF RAIL (TAIL TRACK)
25' DIA. CONSTRUCTION SHAFT FOR EMERGENCY STAIRWAY
EMERGENCY HATCHWAY EGRESS IN 10' WIDE RAISED MEDIAN
STAIRWAY
ESCALATOR, ELEVATOR AND STAIRWAY
PASSAGEWAY
STAIRWAY/ESCALATOR ELEVATOR CONNECTION
EXISTING EASTBOUND TOP OF RAIL
ELEV.: 123.5
EXISTING TOP OF RAIL
EXISTING GRADE
CONNECT TO EXISTING TUNNEL
PROPOSED 320' PLATFORM ELEV.: 99.25
TOP OF RAIL ELEV.: 96.0
S=1.8%
S=0.0%
CONNECT TO EXISTING TRACK
PROPOSED BOTTOM OF TUNNEL
N0+00
N2+00
N3+00
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+0
25+00
26+00
27+00
TAIL TRACK STORAGE
WESTBOUND TRACK PROFILE
DRAFT CC-2 SCHEME

Alternative CC-2 at Charles MGH

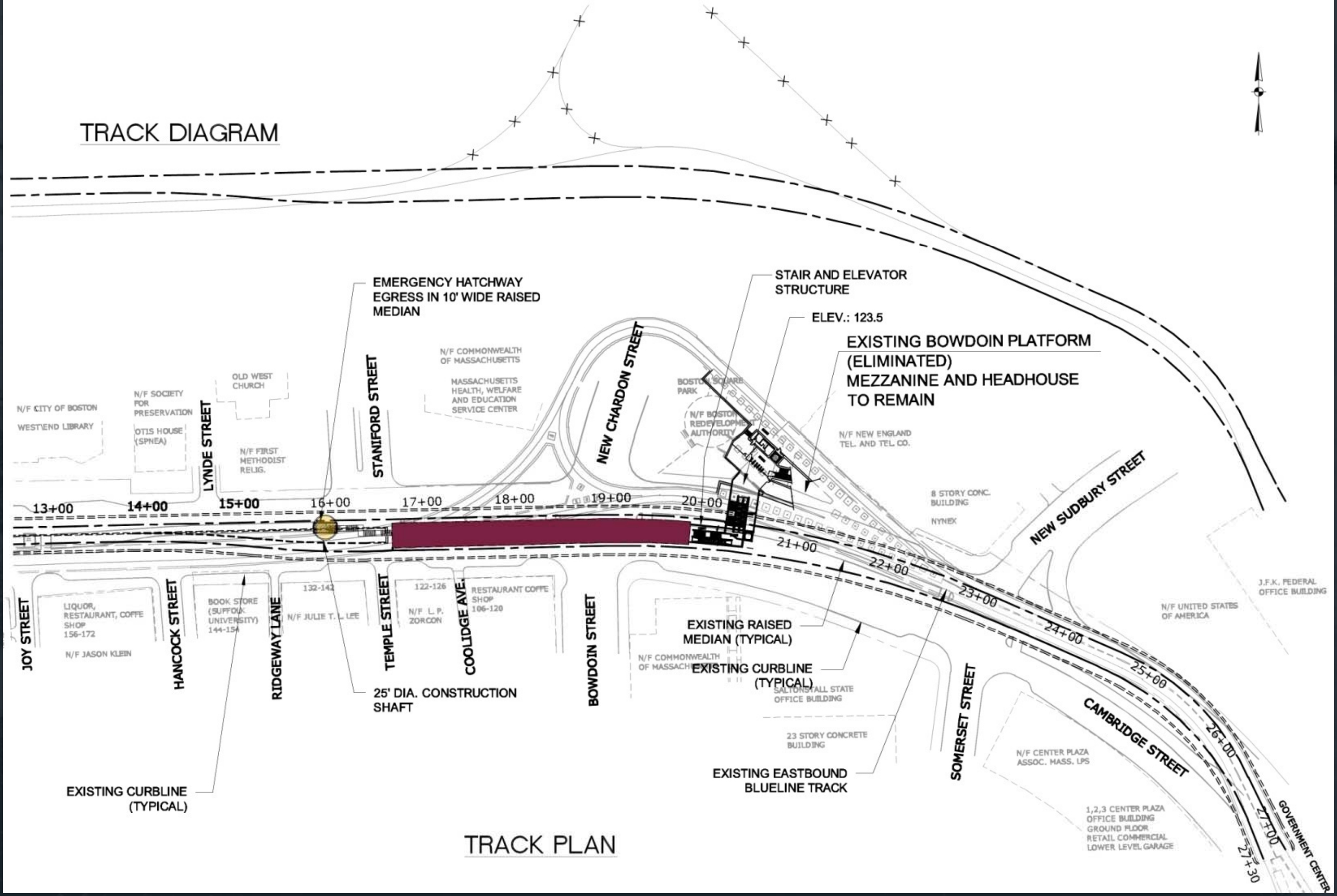


TRACK DIAGRAM
TS1
TS2
TS3
TS4
8' X 8' VENT SHAFT WITH GRATING
CONSTRUCTION ACCESS SHAFT
CHARLES STREET (NORTH)
0+00
N1+00
N2+00
N3+00
N4+20
LONGFELLOW BRIDGE WB
EXISTING CHARLES/MGH STATION
RETAIL COMMERCIAL OFFICE BUILDING (295-325)
N/F GENERAL HOSPITAL CORP.
N GROVE STREET
EMERGENCY HATCHWAY EGRESS IN EXISTING RAISED MEDIAN
10' x 34' SIGNAL ROOM
N/F GENERAL HOSPITAL CORP.
M.G.H. PROFESSIONAL OFFICE BUILDING
N ANDERSON STREET
SMALL PARK
N/F GENERAL HOSPITAL CORP.
N/F GENERAL HOSPITAL CORP.
BLOSSOM STREET
N/F CHARLES RIVER PLAZA CO.
HOTEL (HOLIDAY INN)
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
S3+20
S2+00
S1+00
S0+00
R100'
R100'
N/F INSTITUTE OF EYE RESEARCH
N/F INSTITUTE OF EYE RESEARCH
RESTAURANT #320-310 N/F LOUIS COULOURAS
EXISTING RED LINE (ELEVATED)
PROPOSED CHARLES/MGH BLUE LINE PLATFORM
MULGAR WAY
DRIVE EB
APPROX. LOCATION OF 4' X 4'-6" BRICK SEWER
CHARLES STREET
W. CEDAR STREET
8' DIA. DRILLED SHAFT WITH GRATING
GROVE STREET
#296
GAS STATION
N/F ENERGY RETAILERS INC.
STRONG PL
RETAIL BUILDINGS
ANDERSON STREET
N/F ANDERSON STREET ASSOCIATES
RETAIL BUILDINGS
GARDEN STREET
TRACK CENTERS
35.0'
18.0'
N/F STEPHEN E. CHALETZKY TRUST
NO. 8 TURNOUT (TYPICAL)
TRACK PLAN

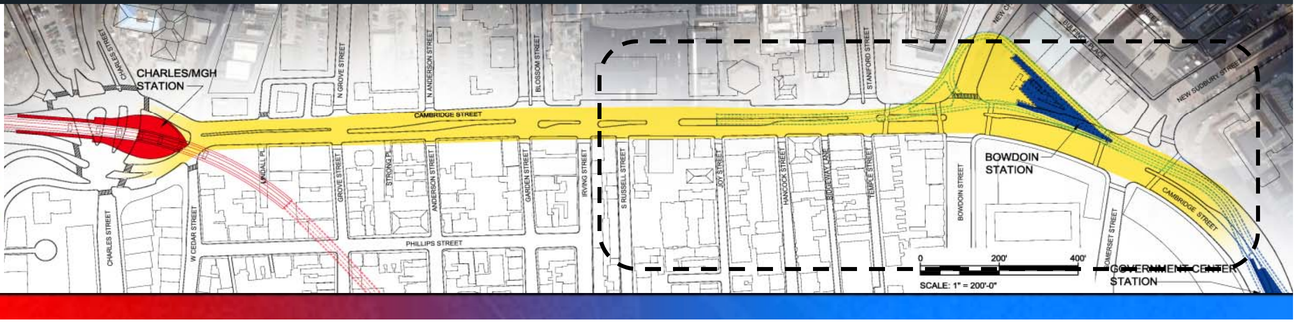
Red Line Blue Line CONNECTOR



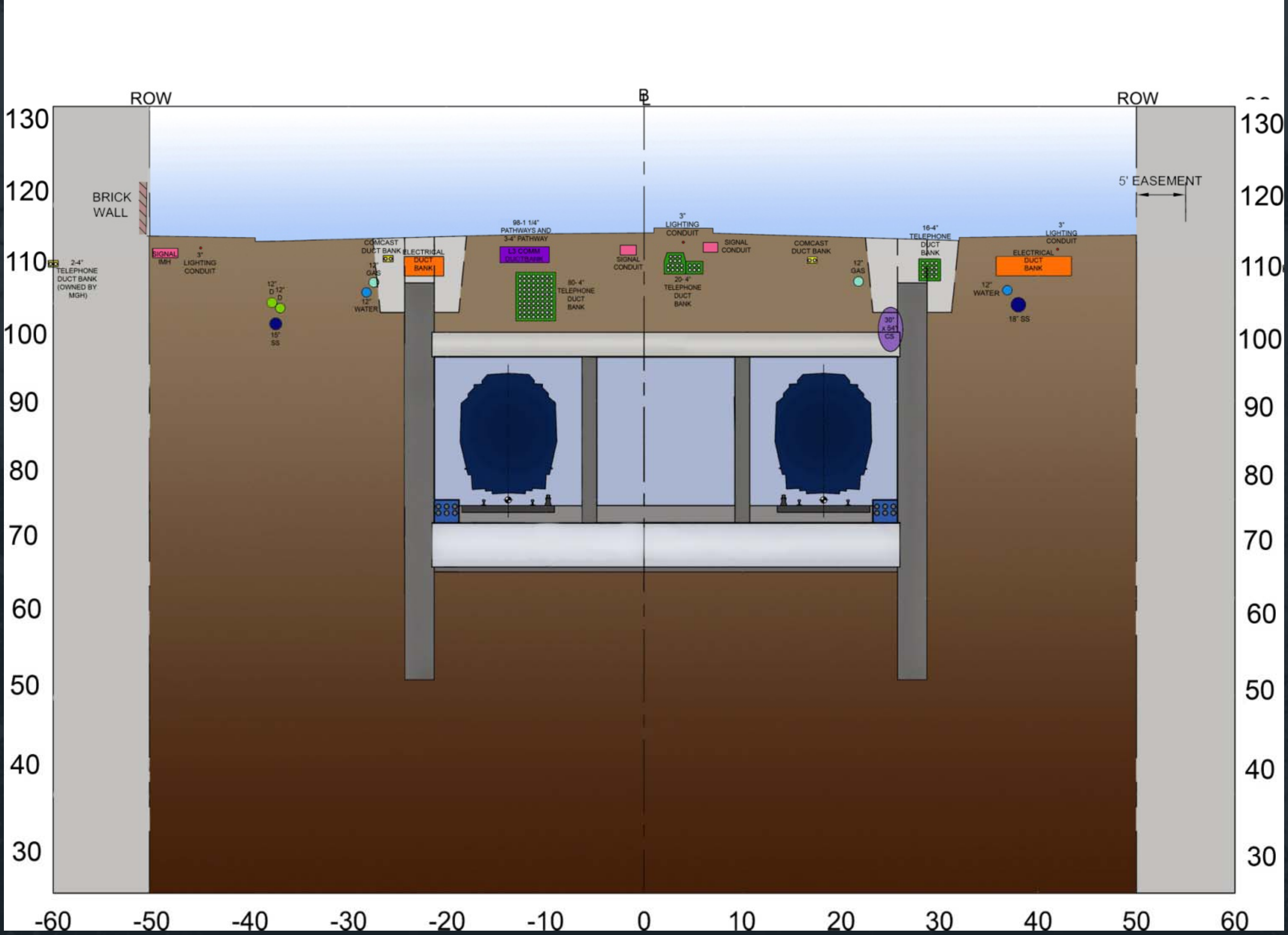
Alternative CC-2 at Relocated Bowdoin


TRACK DIAGRAM
EMERGENCY HATCHWAY EGRESS IN 10' WIDE RAISED MEDIAN
STAIR AND ELEVATOR STRUCTURE
ELEV.: 123.5
EXISTING BOWDOIN PLATFORM (ELIMINATED) MEZZANINE AND HEADHOUSE TO REMAIN
N/F CITY OF BOSTON
WEST END LIBRARY
N/F SOCIETY FOR PRESERVATION
OTIS HOUSE (SPNEA)
OLD WEST CHURCH
N/F FIRST METHODIST RELIG.
LYNDE STREET
STANIFORD STREET
N/F COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HEALTH, WELFARE AND EDUCATION SERVICE CENTER
NEW CHARDON STREET
BOSTON SQUARE PARK
N/F BOSTON REDEVELOPMENT AUTHORITY
N/F NEW ENGLAND TEL. AND TEL. CO.
8 STORY CONC. BUILDING
NYNEX
NEW SUDBURY STREET
J.F.K. FEDERAL OFFICE BUILDING
N/F UNITED STATES OF AMERICA
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
27+30
JOY STREET
LIQUOR, RESTAURANT, COFFE SHOP 156-172
N/F JASON KLEIN
HANCOCK STREET
BOOK STORE (SUFFOLK UNIVERSITY) 144-154
RIDGEWAY LANE
132-142
N/F JULIE T. L. LEE
TEMPLE STREET
122-126
N/F L. P. ZORCON
COOLIDGE AVE.
RESTAURANT COFFE SHOP 106-120
BOWDOIN STREET
25' DIA. CONSTRUCTION SHAFT
EXISTING RAISED MEDIAN (TYPICAL)
EXISTING CURBLINE (TYPICAL)
N/F COMMONWEALTH OF MASSACHUSETTS
SALTONSTALL STATE OFFICE BUILDING
23 STORY CONCRETE BUILDING
EXISTING EASTBOUND BLUELINE TRACK
SOMERSET STREET
CAMBRIDGE STREET
N/F CENTER PLAZA ASSOC. MASS. LPS
1,2,3 CENTER PLAZA OFFICE BUILDING GROUND FLOOR RETAIL COMMERCIAL LOWER LEVEL GARAGE
GOVERNMENT CENTER
EXISTING CURBLINE (TYPICAL)
TRACK PLAN

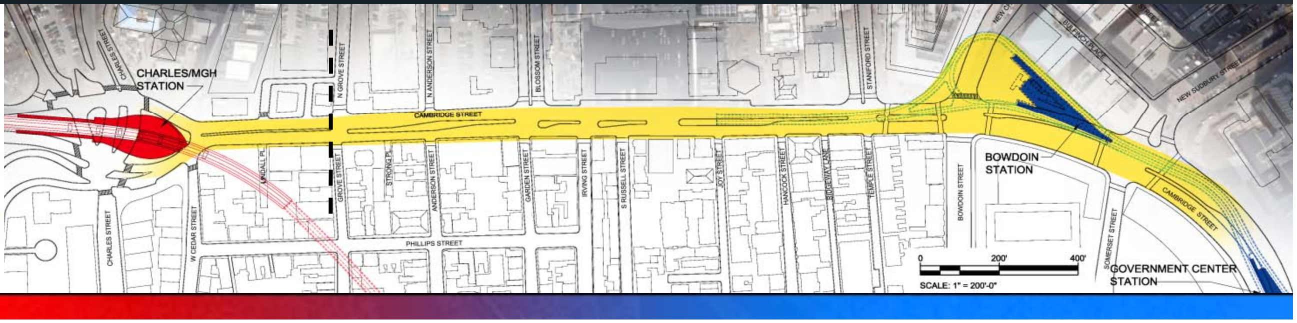
Red Line
Blue Line
CONNECTOR



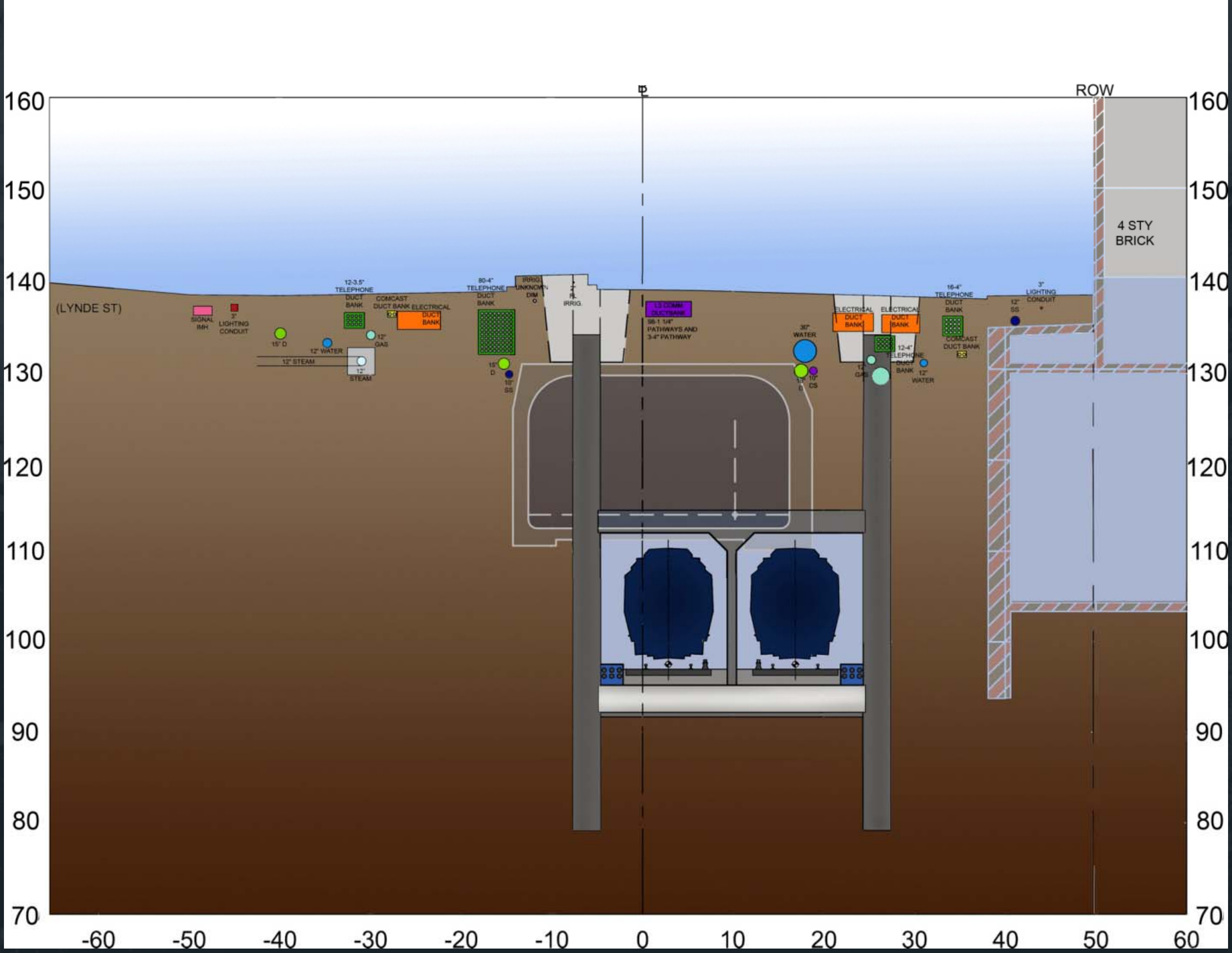
Alternative CC-2 Sections



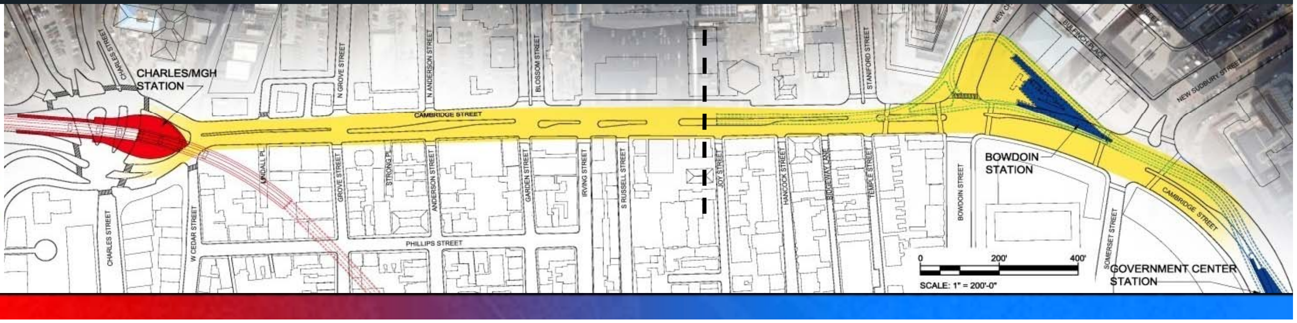
Red Line
Blue Line
CONNECTOR



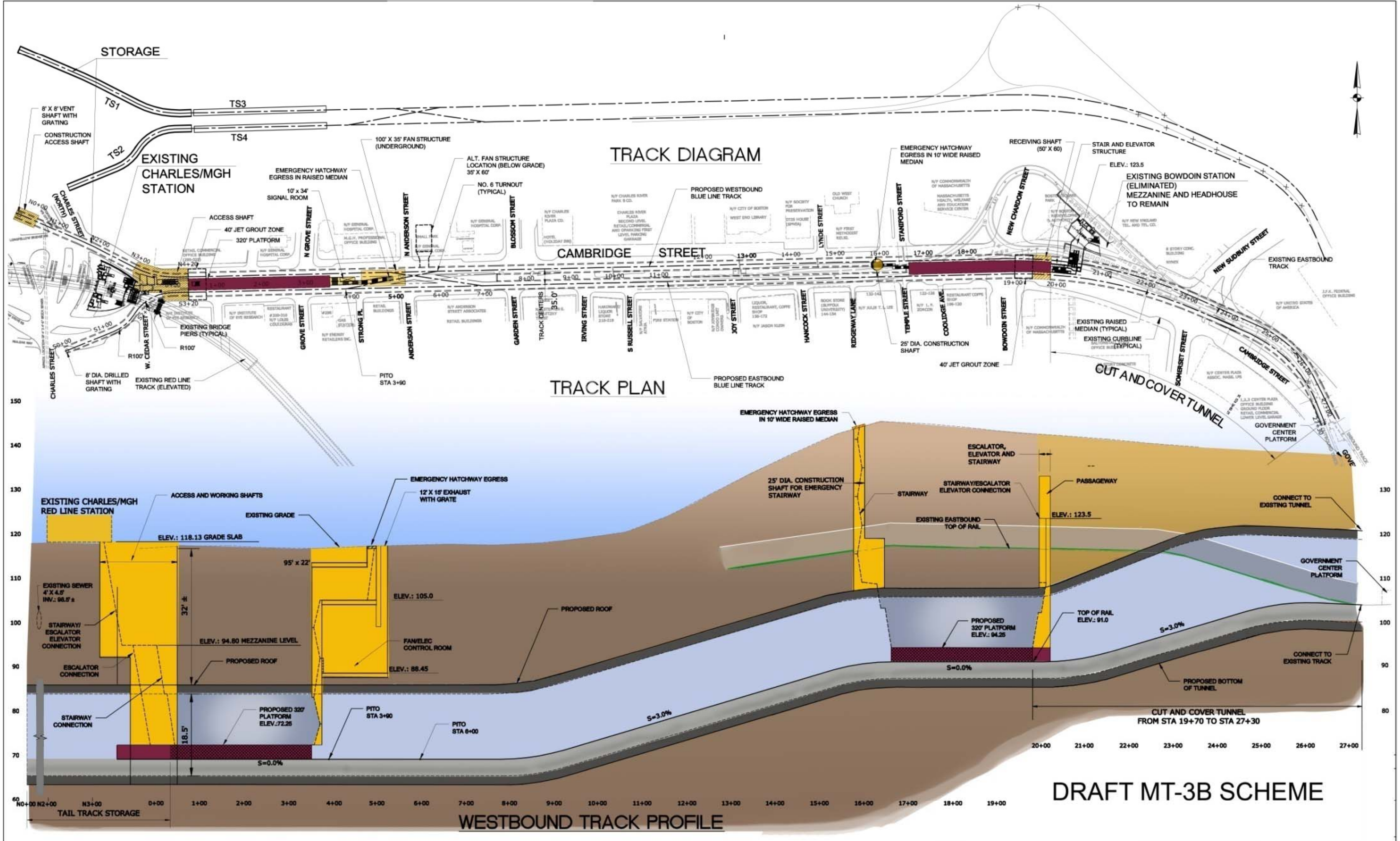
Alternative CC-2 Sections



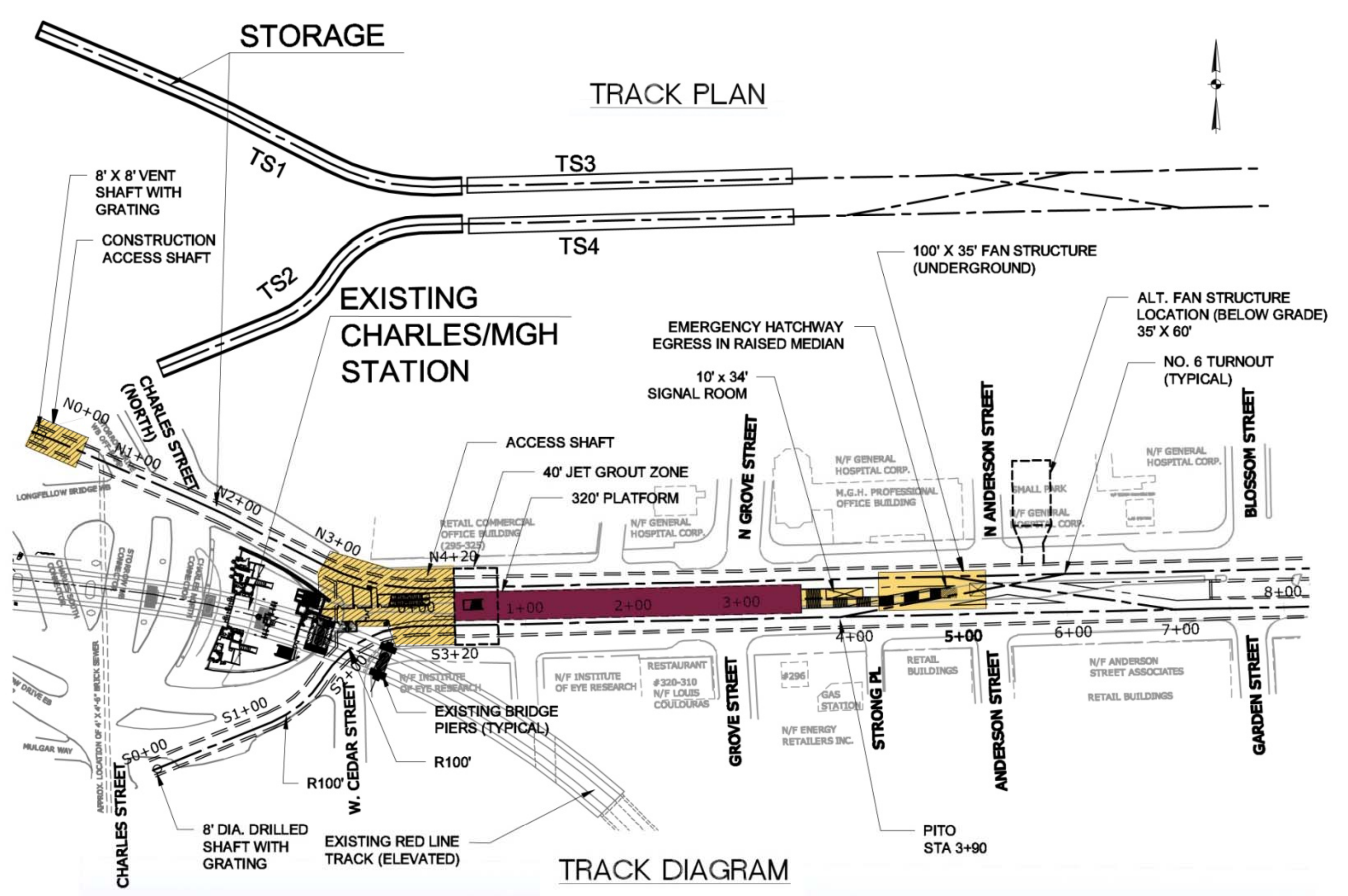
Red Line
Blue Line
CONNECTOR



Alternative MT-3B

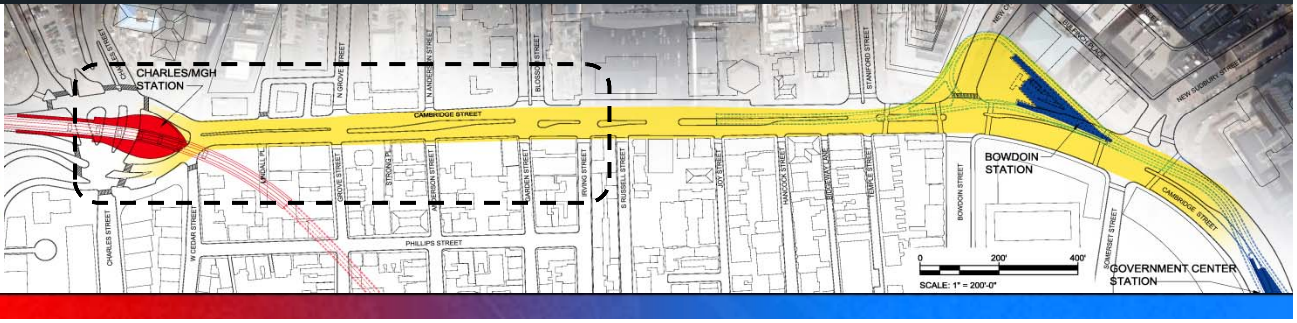

STORAGE
TS1
TS2
TS3
TS4
8' X 8' VENT SHAFT WITH GRATING
CONSTRUCTION ACCESS SHAFT
EXISTING CHARLES/MGH STATION
CHARLES STREET (NORTH)
N0+00
N1+00
N2+00
N3+00
N4+20
S3+20
S1+00
S0+00
ACCESS SHAFT
40' JET GROUT ZONE
320' PLATFORM
EMERGENCY HATCHWAY EGRESS IN RAISED MEDIAN
10' x 34' SIGNAL ROOM
100' X 35' FAN STRUCTURE (UNDERGROUND)
ALT. FAN STRUCTURE LOCATION (BELOW GRADE) 35' X 60'
NO. 6 TURNOUT (TYPICAL)
TRACK DIAGRAM
PROPOSED WESTBOUND BLUE LINE TRACK
N GROVE STREET
N ANDERSON STREET
BLOSSOM STREET
CAMBRIDGE STREET
LYNDE STREET
STANIFORD STREET
NEW CHARDON STREET
EMERGENCY HATCHWAY EGRESS IN 10' WIDE RAISED MEDIAN
RECEIVING SHAFT (50' X 60)
STAIR AND ELEVATOR STRUCTURE
ELEV.: 123.5
EXISTING BOWDOIN STATION (ELIMINATED) MEZZANINE AND HEADHOUSE TO REMAIN
NEW SUDBURY STREET
EXISTING EASTBOUND TRACK
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
27+30
35.0'
TRACK CENTERS
EXISTING BRIDGE PIERS (TYPICAL)
R100'
W. CEDAR STREET
GROVE STREET
STRONG PL
ANDERSON STREET
GARDEN STREET
IRVING STREET
S RUSSELL STREET
JOY STREET
HANCOCK STREET
RIDGEWAY LANE
TEMPLE STREET
COOLIDGE AVE.
BOWDOIN STREET
SOMERSET STREET
CAMBRIDGE STREET
CHARLES STREET
8' DIA. DRILLED SHAFT WITH GRATING
EXISTING RED LINE TRACK (ELEVATED)
PITO STA 3+90
TRACK PLAN
PROPOSED EASTBOUND BLUE LINE TRACK
25' DIA. CONSTRUCTION SHAFT
40' JET GROUT ZONE
EXISTING RAISED MEDIAN (TYPICAL)
EXISTING CURBLINE (TYPICAL)
CUT AND COVER TUNNEL
GOVERNMENT CENTER PLATFORM
GOVE
150
140
130
120
110
100
90
80
70
60
EXISTING CHARLES/MGH RED LINE STATION
ACCESS AND WORKING SHAFTS
EXISTING GRADE
ELEV.: 118.13 GRADE SLAB
EMERGENCY HATCHWAY EGRESS
12' X 15' EXHAUST WITH GRATE
95' x 22'
ELEV.: 105.0
32' ±
EXISTING SEWER 4' X 4.5' INV.: 98.5' ±
STAIRWAY/ ESCALATOR ELEVATOR CONNECTION
ELEV.: 94.80 MEZZANINE LEVEL
FAN/ELEC CONTROL ROOM
PROPOSED ROOF
ELEV.: 88.45
ESCALATOR CONNECTION
STAIRWAY CONNECTION
PROPOSED 320' PLATFORM ELEV.:72.25
18.5'
S=0.0%
PITO STA 3+90
PITO STA 6+00
S=3.0%
N0+00 N2+00
N3+00
0+00
TAIL TRACK STORAGE
WESTBOUND TRACK PROFILE
EMERGENCY HATCHWAY EGRESS IN 10' WIDE RAISED MEDIAN
25' DIA. CONSTRUCTION SHAFT FOR EMERGENCY STAIRWAY
STAIRWAY
ESCALATOR, ELEVATOR AND STAIRWAY
STAIRWAY/ESCALATOR ELEVATOR CONNECTION
PASSAGEWAY
EXISTING EASTBOUND TOP OF RAIL
ELEV.: 123.5
CONNECT TO EXISTING TUNNEL
GOVERNMENT CENTER PLATFORM
PROPOSED 320' PLATFORM ELEV.: 94.25
TOP OF RAIL ELEV.: 91.0
S=3.0%
S=0.0%
CONNECT TO EXISTING TRACK
PROPOSED BOTTOM OF TUNNEL
CUT AND COVER TUNNEL FROM STA 19+70 TO STA 27+30
DRAFT MT-3B SCHEME

Alternative MT-3B at Charles MGH

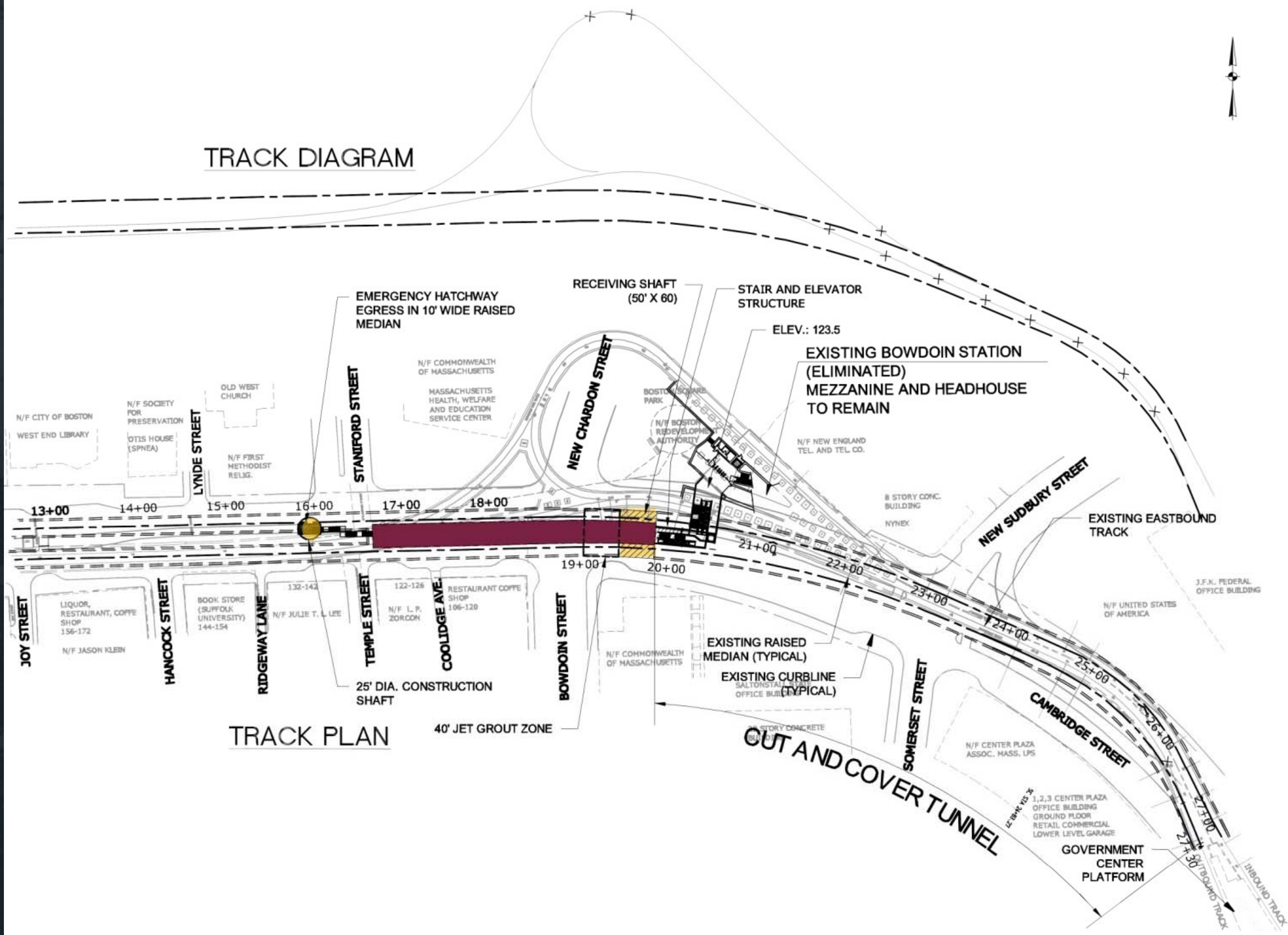


STORAGE
TRACK PLAN
TS1
TS2
TS3
TS4
8' X 8' VENT SHAFT WITH GRATING
CONSTRUCTION ACCESS SHAFT
EXISTING CHARLES/MGH STATION
100' X 35' FAN STRUCTURE (UNDERGROUND)
ALT. FAN STRUCTURE LOCATION (BELOW GRADE) 35' X 60'
EMERGENCY HATCHWAY EGRESS IN RAISED MEDIAN
10' x 34' SIGNAL ROOM
NO. 6 TURNOUT (TYPICAL)
CHARLES STREET (NORTH)
N0+00
N1+00
N2+00
N3+00
N4+20
S3+20
S2+00
S1+00
S0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
LONGFELLOW BRIDGE WB
ACCESS SHAFT
40' JET GROUT ZONE
320' PLATFORM
RETAIL COMMERCIAL OFFICE BUILDING (295-325)
N/F GENERAL HOSPITAL CORP.
N GROVE STREET
M.G.H. PROFESSIONAL OFFICE BUILDING
N ANDERSON STREET
SMALL PARK
BLOSSOM STREET
N/F INSTITUTE OF EYE RESEARCH
RESTAURANT #320-310 N/F LOUIS COULOURAS
GROVE STREET
#296
GAS STATION
N/F ENERGY RETAILERS INC.
STRONG PL
RETAIL BUILDINGS
ANDERSON STREET
N/F ANDERSON STREET ASSOCIATES
RETAIL BUILDINGS
GARDEN STREET
EXISTING BRIDGE PIERS (TYPICAL)
R100'
R100'
W. CEDAR STREET
MULGAR WAY
APPROX. LOCATION OF 4' X 4'-6" BRICK SEWER
CHARLES STREET
8' DIA. DRILLED SHAFT WITH GRATING
EXISTING RED LINE TRACK (ELEVATED)
PITO STA 3+90
TRACK DIAGRAM

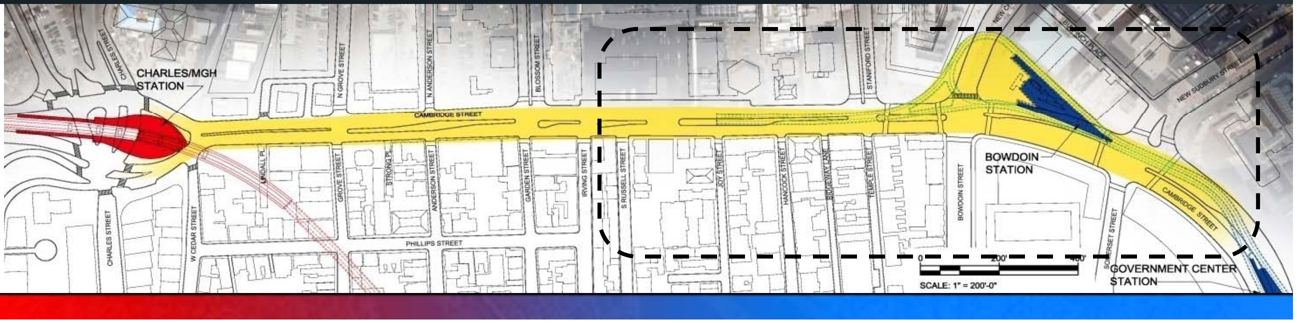
Red Line
Blue Line
CONNECTOR



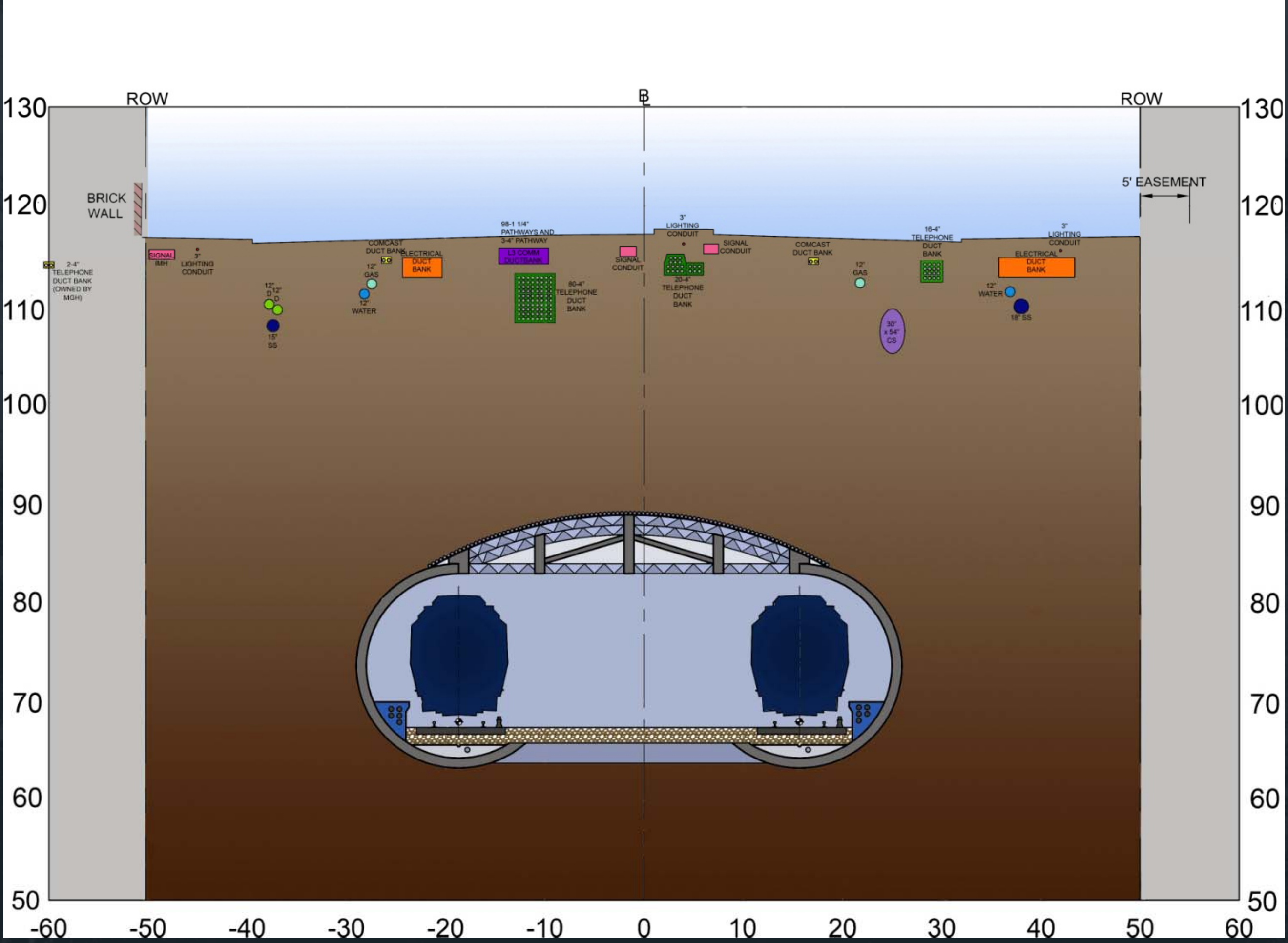
Alternative MT-3B at Relocated Bowdoin


TRACK DIAGRAM
EMERGENCY HATCHWAY EGRESS IN 10' WIDE RAISED MEDIAN
RECEIVING SHAFT (50' X 60)
STAIR AND ELEVATOR STRUCTURE
ELEV.: 123.5
EXISTING BOWDOIN STATION (ELIMINATED) MEZZANINE AND HEADHOUSE TO REMAIN
N/F COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS HEALTH, WELFARE AND EDUCATION SERVICE CENTER
OLD WEST CHURCH
N/F SOCIETY FOR PRESERVATION
OTIS HOUSE (SPNEA)
N/F CITY OF BOSTON
WEST END LIBRARY
N/F FIRST METHODIST RELIG.
LYNDE STREET
STANIFORD STREET
NEW CHARDON STREET
BOSTON SQUARE PARK
N/F BOSTON REDEVELOPMENT AUTHORITY
N/F NEW ENGLAND TEL. AND TEL. CO.
8 STORY CONC. BUILDING
NYNEX
NEW SUDBURY STREET
EXISTING EASTBOUND TRACK
J.F.K. FEDERAL OFFICE BUILDING
N/F UNITED STATES OF AMERICA
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00
26+00
27+00
27+30
JOY STREET
LIQUOR, RESTAURANT, COFFE SHOP 156-172
N/F JASON KLEIN
HANCOCK STREET
BOOK STORE (SUFFOLK UNIVERSITY) 144-154
RIDGEWAY LANE
132-142
N/F JULIE T. L. LEE
TEMPLE STREET
122-126
N/F L. P. ZORCON
COOLIDGE AVE.
RESTAURANT COFFE SHOP 106-120
BOWDOIN STREET
N/F COMMONWEALTH OF MASSACHUSETTS
EXISTING RAISED MEDIAN (TYPICAL)
EXISTING CURBLINE (TYPICAL)
SALTONSTALL STATE OFFICE BUILDING
STORY CONCRETE BUILDING
25' DIA. CONSTRUCTION SHAFT
TRACK PLAN
40' JET GROUT ZONE
CUT AND COVER TUNNEL
SOMERSET STREET
CAMBRIDGE STREET
N/F CENTER PLAZA ASSOC. MASS. LPS
1,2,3 CENTER PLAZA OFFICE BUILDING GROUND FLOOR RETAIL COMMERCIAL LOWER LEVEL GARAGE
GOVERNMENT CENTER PLATFORM
OUTBOUND TRACK
INBOUND TRACK

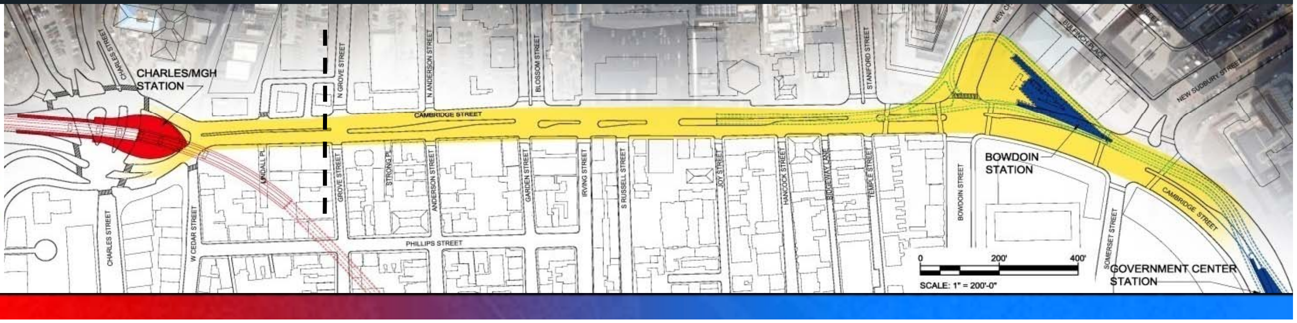
Red Line
Blue Line
CONNECTOR



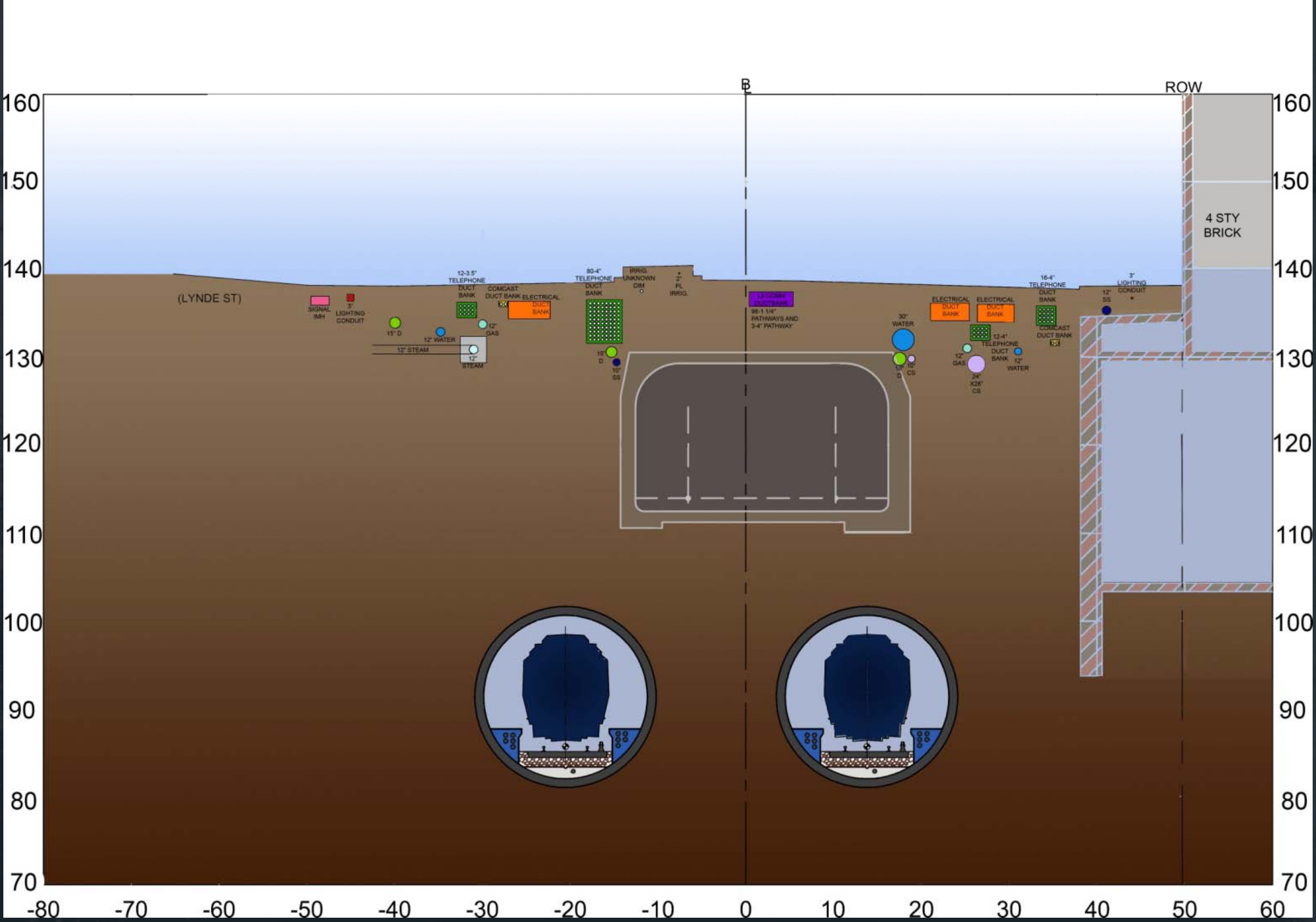
Alternative MT-3B Sections



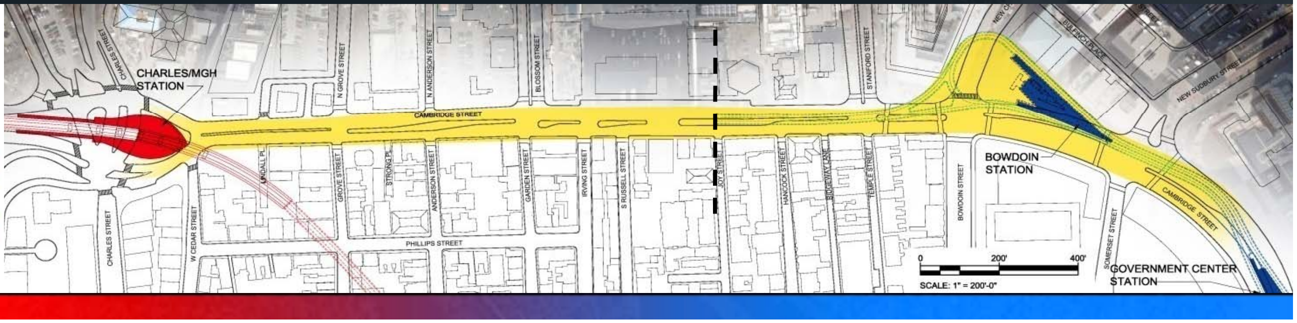
Red Line Blue Line CONNECTOR



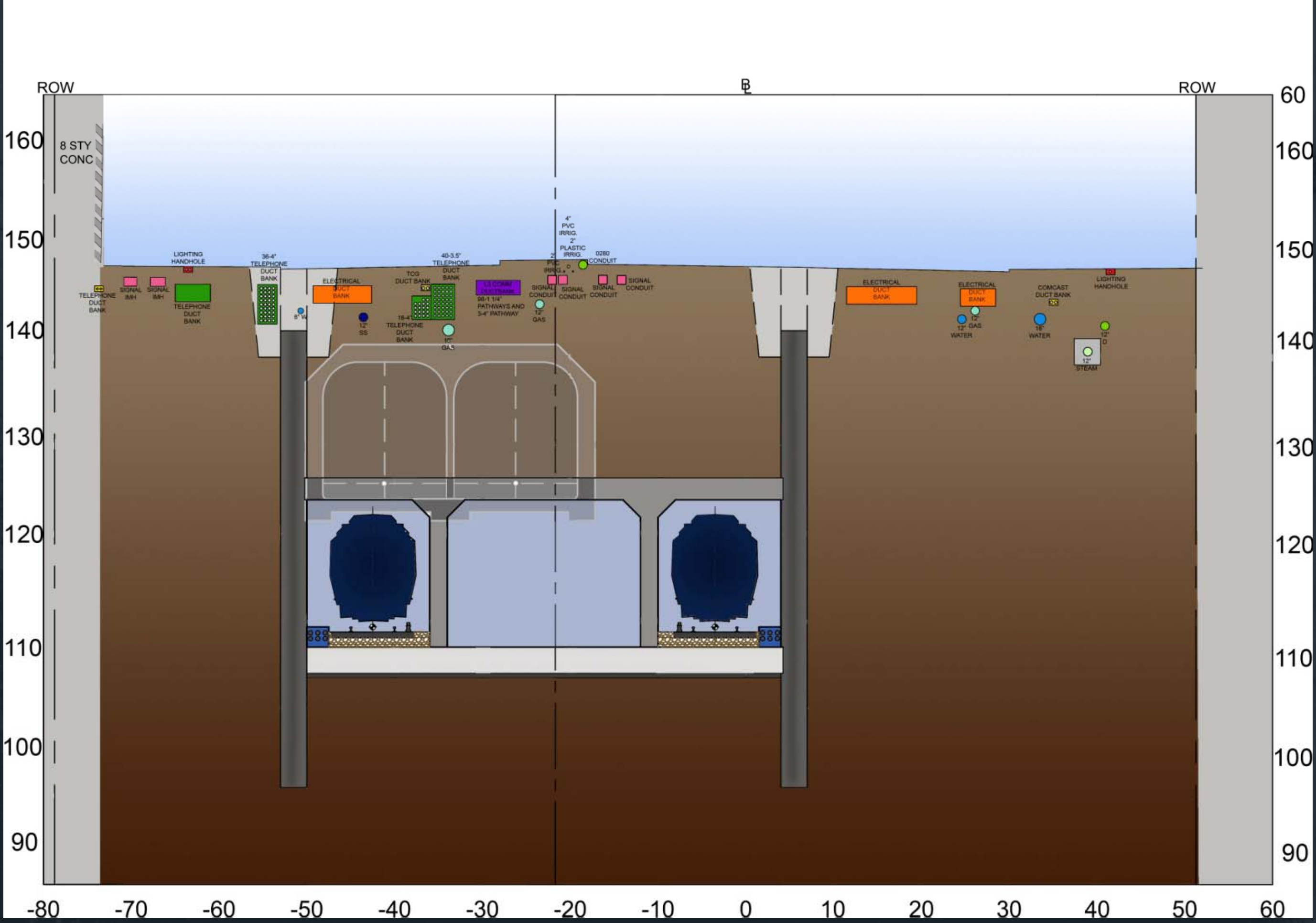
Alternative MT-3B Sections



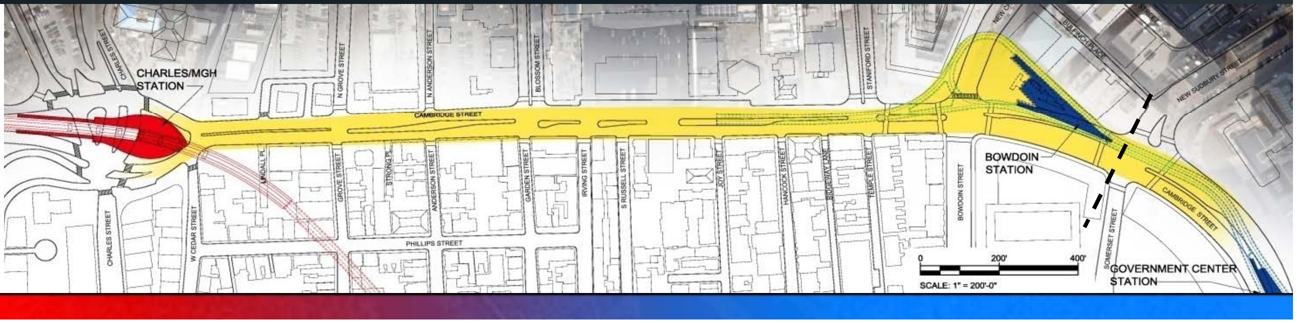
Red Line
Blue Line
CONNECTOR



Alternative MT-3B Sections



Red Line
Blue Line
CONNECTOR



Alternatives Presentation and Discussion of Construction Methodology

Questions?

4.0 Presentation of Revised Evaluation Criteria

- **Transit Service/ *Operations**
  - **Ridership*
  - *Station Access*
  - *Quality of Transit*
  - *Operations*
  - *Storage and Layover*
- **Construction Impacts**
  - *Construction Duration*
  - *Traffic Impacts*
  - *Pedestrian / Bicycle Impacts*
  - *Environmental Impacts (related to construction)*
  - *Impacts to Blue Line Operations*
  - *Impacts to Red Line Operations*
  - *Impacts to Business and Residents*
- **Community Impacts**
  - *Impact on Business Community*
  - *Impact on Residents*
  - *Impact on Cambridge Street*
  - *Opportunity to Upgrade Utilities*
- **Environment**
  - *Historic/Archeological*
  - *Noise and Vibration*
  - *Groundwater/ Stormwater*
  - *Parklands*
  - *Traffic*
- ****Cost Impacts**
  - **Capital Costs*
  - *Operation and Maintenance Costs*
- **Coordination**
  - *Available Right of Way*
  - *Impact on Other Area Transportation Projects*
  - *Compatibility with SIP*

Evaluation of Alternatives Criteria

Scoring Legend:

- +4 = Most Advantageous
- -4 = Least Advantageous
- 0 = Neutral

Footnote Legend:

- * Order of Magnitude Ridership Comparison (to be estimated in the fall of 2009)
- ** Order of Magnitude Cost Comparison (to be estimated in for the Final Environment Impact Report)

STV

Evaluation of Alternatives		*BR*		*BE*	
Criterion	**Definition**	**MT**	**CC**	**MT**	**CC**
TRANSIT SERVICE / OPERATIONS					
Ridership*	Does the alternative attract strong ridership and benefit other transit services, including planned projects?	4	4	4	4
Station Access	Does the alternative support transit, pedestrian and bicycle connectivity? Does the proposed station(s) have ADA compliant infrastructure and suitable access?	4	4	2	2
Quality of Transit Service	Does the alternative promote short travel times, frequent headways, and reliable transit service?	4	4	4	4
Operations	Does the alternative meet the MBTA's requirements for operations? (i.e. cross-overs/turnbacks, operational flexibility)	4	4	4	4
Storage and Layover	Does the alternative achieve the MBTA's goals for storage and layover of trains?	4	4	4	4
	Average Score	**4.00**	**4.00**	**3.60**	**3.60**

*Order of Magnitude. Ridership to be estimated Fall 2009.

Evaluation of Alternatives		***BR***		***BE***	
Criterion	**Definition**	**MT**	**CC**	**MT**	**CC**
CONSTRUCTION IMPACTS					
Construction Duration	Would the length of construction be reasonable and minimize impacts to the surrounding area?	-1	-4	0	-3
Traffic Impacts	Will the proposed construction methodology impact area traffic?	-1	-4	0	-3
Pedestrian / Bicycle Impacts	Does the proposed construction methodology negatively impact pedestrian and bicycle access in the area?	-1	-4	0	-3
Environmental Impacts (related to construction)	Will there be impacts to the environment during construction (i.e. noise, vibration, soil settlement)?	-1	-4	0	-3

(Continued)

Evaluation of Alternatives		***BR***		***BE***	
Criterion	**Definition**	**MT**	**CC**	**MT**	**CC**
CONSTRUCTION IMPACTS					

(Continued)

Impacts to Blue Line Operations	Would there be impacts to the existing Blue Line operations during construction?	0	0	0	0
Impacts to Red Line Operations	Would there be impacts to the existing Red Line operations during construction?	0	0	0	0
Impacts to Business and Residents	Would businesses and residents be adversely affected during construction?	-1	-4	0	-3
	Average Score	**-0.71**	**-2.86**	**0.00**	**-2.14**

Evaluation of Alternatives		***BR***		***BE***	
Criterion	**Definition**	**MT**	**CC**	**MT**	**CC**
COMMUNITY IMPACTS					
Impact on Business Community	Does the alternative have long-term impacts on area businesses?	4	4	1	1
Impact on Residents	Does the alternative have long-term impacts on area residents?	4	4	1	1
Impact on Cambridge Street	Does the alternative have long-term impacts on streetscapes?	0	0	1	1
Opportunity to Upgrade Utilities	Does the alternative present opportunities to upgrade utilities along Cambridge Street?	1	3	1	3
	Average Score	**2.25**	**2.75**	**1.00**	**1.50**

Evaluation of Alternatives		***BR***		***BE***	
Criterion	**Definition**	**MT**	**CC**	**MT**	**CC**
ENVIRONMENT					
Historic / Archeological	Does the alternative have historic or archeological impacts on the Otis House Museum, Old West Church, and other resources?	0	-1	0	-1
Noise and Vibration	Does the alternative have impacts on noise and vibration in the area?	-1	-1	-1	-1
Groundwater / Stormwater	Does the alternative have impacts on groundwater/stormwater?	0	0	0	0
Parklands	Does the alternative have impacts on area parklands?	-1	-1	1	1
Traffic	Does the alternative impact area traffic?	1	1	0	0
	Average Score	**-0.20**	**-0.40**	**0.00**	**-0.20**

Evaluation of Alternatives		***BR***		***BE***	
Criterion	**Definition**	**MT**	**CC**	**MT**	**CC**
COST**					
Capital Cost	Would the alternative require large capital construction costs?	2	1	4	3
Operating and Maintenance Cost	Would the alternative require large operating and maintenance costs?	1	1	2	2
	Average Score	**1.50**	**1.00**	**3.00**	**2.50**

**Order of Magnitude. Costs to be estimated as part of FEIR.

Evaluation of Alternatives		***BR***		***BE***	
Criterion	**Definition**	**MT**	**CC**	**MT**	**CC**
COORDINATION					
Available Right-of-Way	Does the proposed location have adequate right-of-way to accommodate the necessary infrastructure?	-1	-2	-2	-1
Impact on Other Area Transportation Projects	Can the alternative be coordinated with other area projects, including Storrow Drive, Longfellow Bridge, and Government Center Station?	1	-1	2	0
Compatibility with State Implementation Plan	Will the alternative reasonably allow EOT to meet the requirements of the SIP?	4	4	4	4
	Average Score	**1.33**	**0.33**	**1.33**	**1.00**

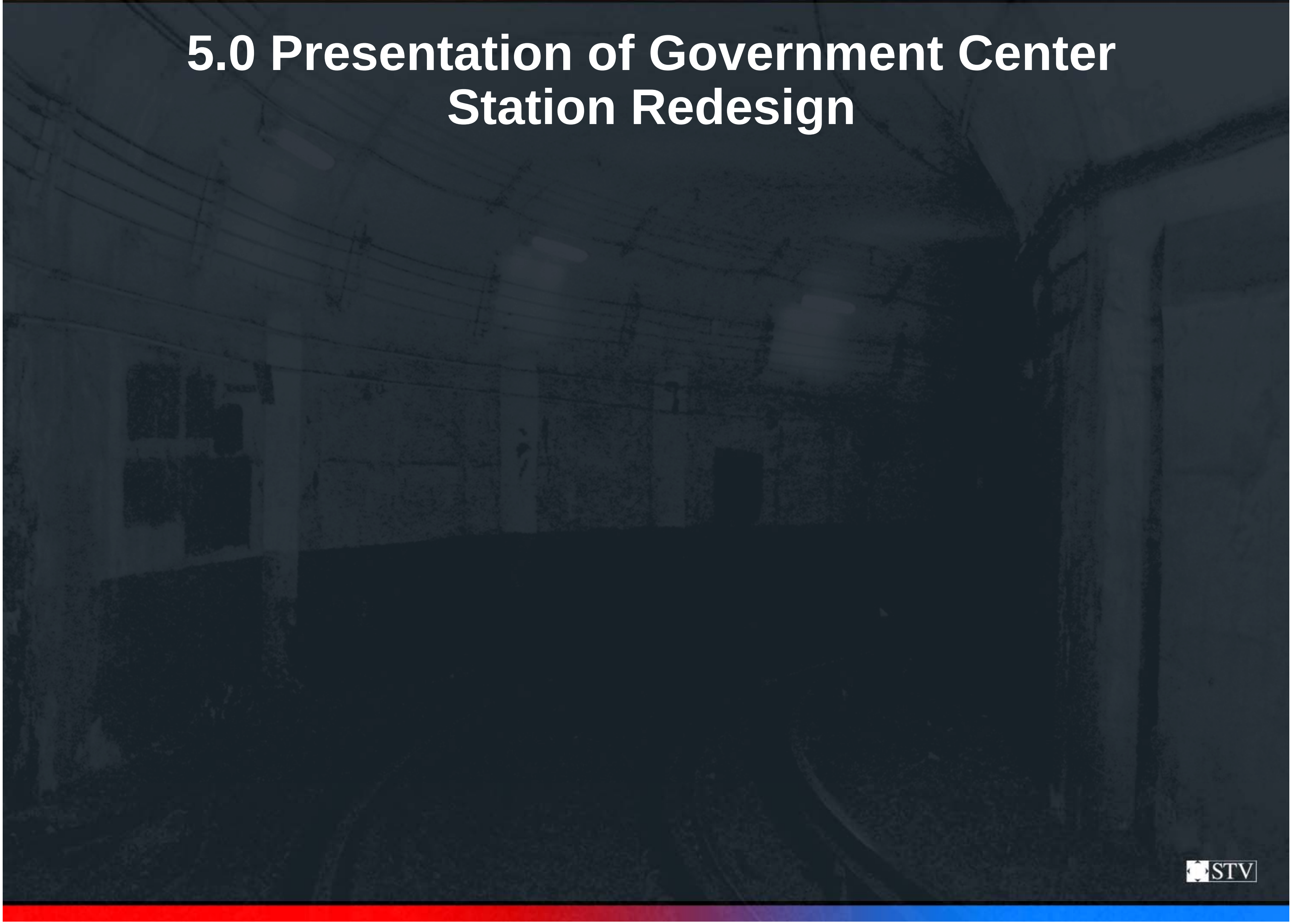
Evaluation of Alternatives	*BR*		*BE*	
AVERAGE CATEGORY SCORES	**MT**	**CC**	**MT**	**CC**
TRANSIT SERVICE / OPERATIONS*	**4.00**	**4.00**	**3.60**	**3.60**
CONSTRUCTION IMPACTS	**-0.71**	**-2.86**	**0.00**	**-2.14**
COMMUNITY IMPACTS	**2.25**	**2.75**	**1.00**	**1.50**
ENVIRONMENT	**-0.20**	**-0.40**	**0.00**	**-0.20**
COST*	**1.50**	**1.00**	**3.00**	**2.50**
COORDINATION	**1.33**	**0.33**	**1.33**	**1.00**
Sum of Averages	**8.17**	**4.83**	**8.93**	**6.26**

**Order of Magnitude. Costs to be estimated as part of FEIR.

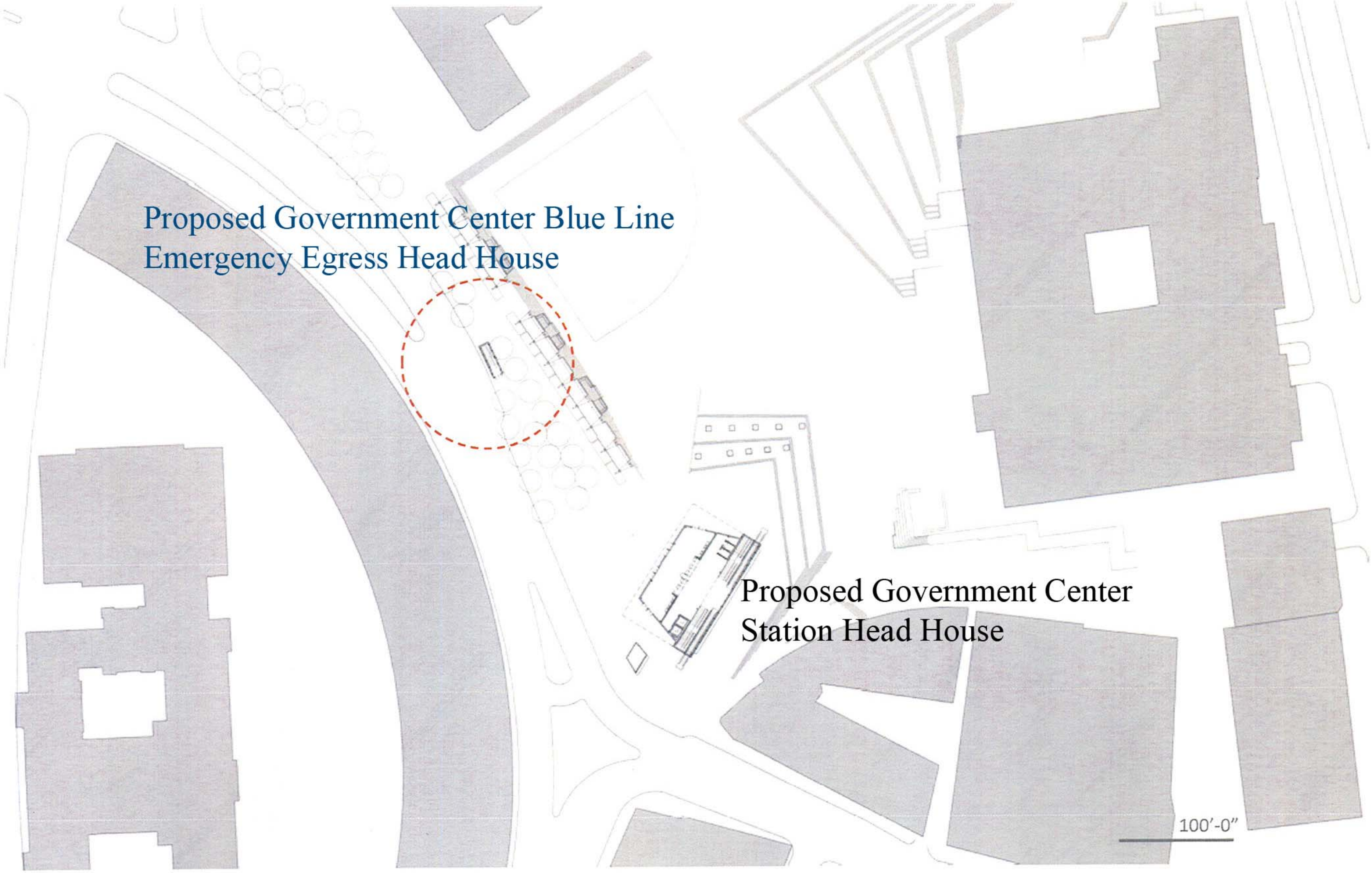
Evaluation of Alternatives Criteria

Questions?

5.0 Presentation of Government Center Station Redesign

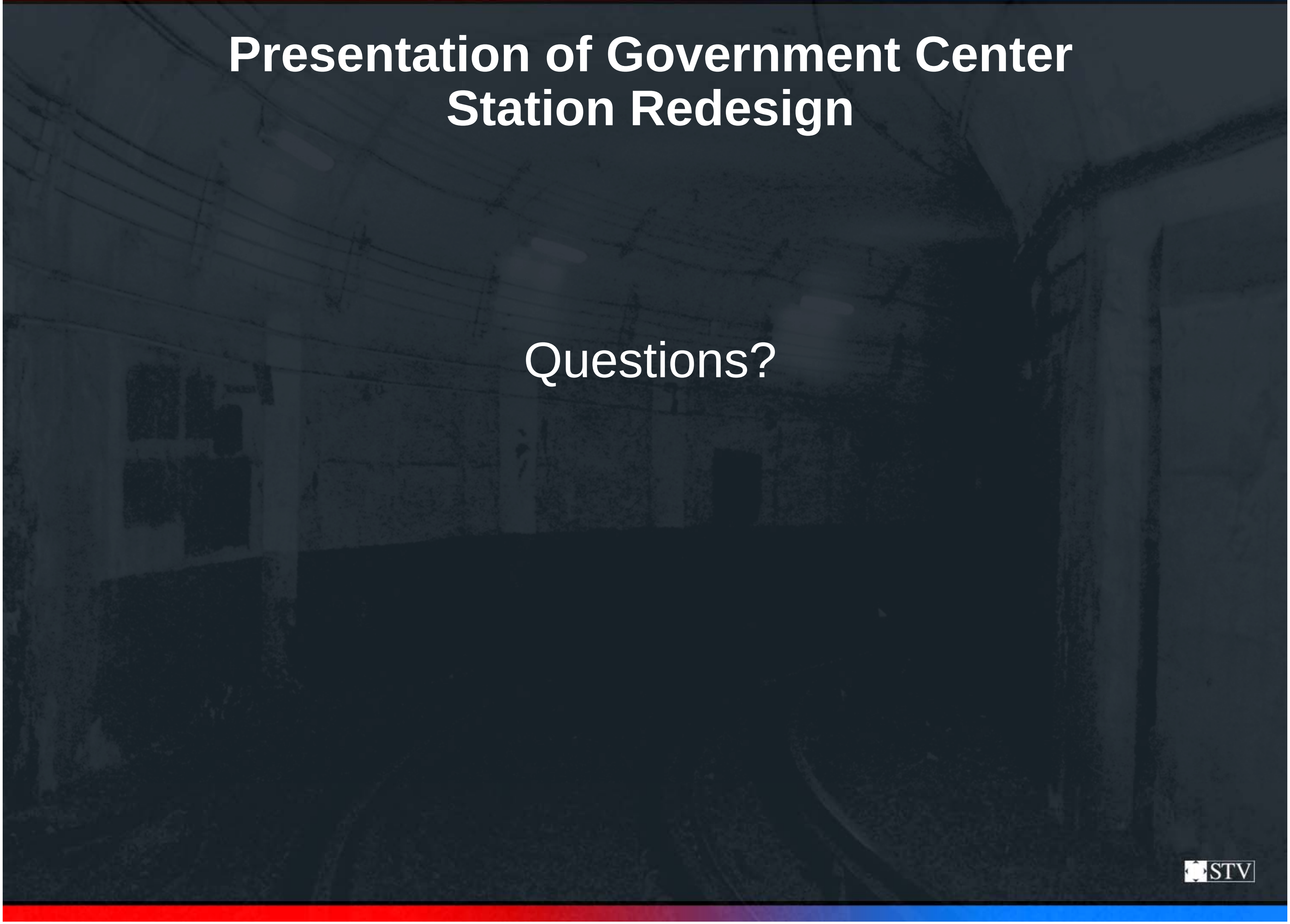


Government Center Station Redesign


Proposed Government Center Blue Line Emergency Egress Head House
Proposed Government Center Station Head House
100'-0"

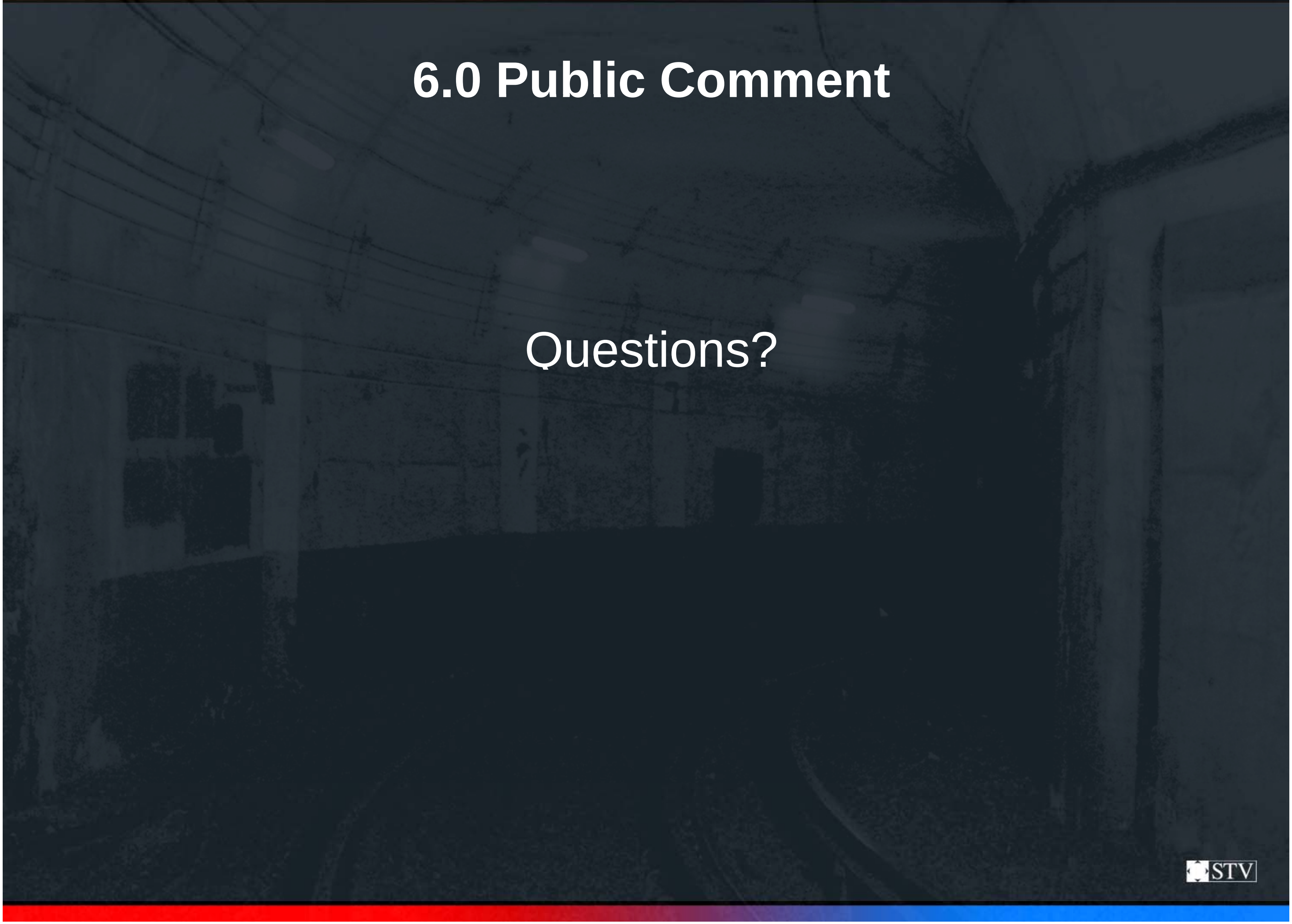
Site context

Presentation of Government Center Station Redesign



Questions?

6.0 Public Comment



Questions?

7.0 Next Meeting

- Early October
  - *(date to be confirmed)*

- Public Meeting in late October-early November
  - *(date to be confirmed)*

Next Meeting

Questions?

Project Contact Information

Please contact public involvement representatives Nancy Farrell or Regan Checchio, 617-357-5772 (nfarrell@reginavilla.com; rchecchio@reginavilla.com). if you would like to arrange a briefing for your organization or neighborhood this fall.

EOT Project Team: Kate Fichter, 617-973-7342, Katherine.Fichter@eot.state.ma.us; Scott Hamwey, 617-973-7210, Scott.Hamwey@eot.state.ma.us

PROJECT WEBSITE –http://www.mass.gov/eot/redblue

Project background materials, minutes and presentations are posted on this site.

STV